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# COLUMBIA

## UNIVERSITY QUARTERLY

DECEMBER, 1898

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No. 1

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## COLUMBIA UNIVERSITY QUARTERLY

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The QUARTERLY is issued by the Columbia University Press, with the approval of the Trustees of the University. It is addressed to the alumni, officers, and friends of Columbia; and its purpose is to publish articles of interest on topics that concern the University as a whole, to furnish pertinent information with regard to its various departments, and to give a summary of important University legislation. The QUARTERLY is issued in December, March, June, and September. The annual subscription is **one dollar**, and single numbers are sold at **thirty cents** each.

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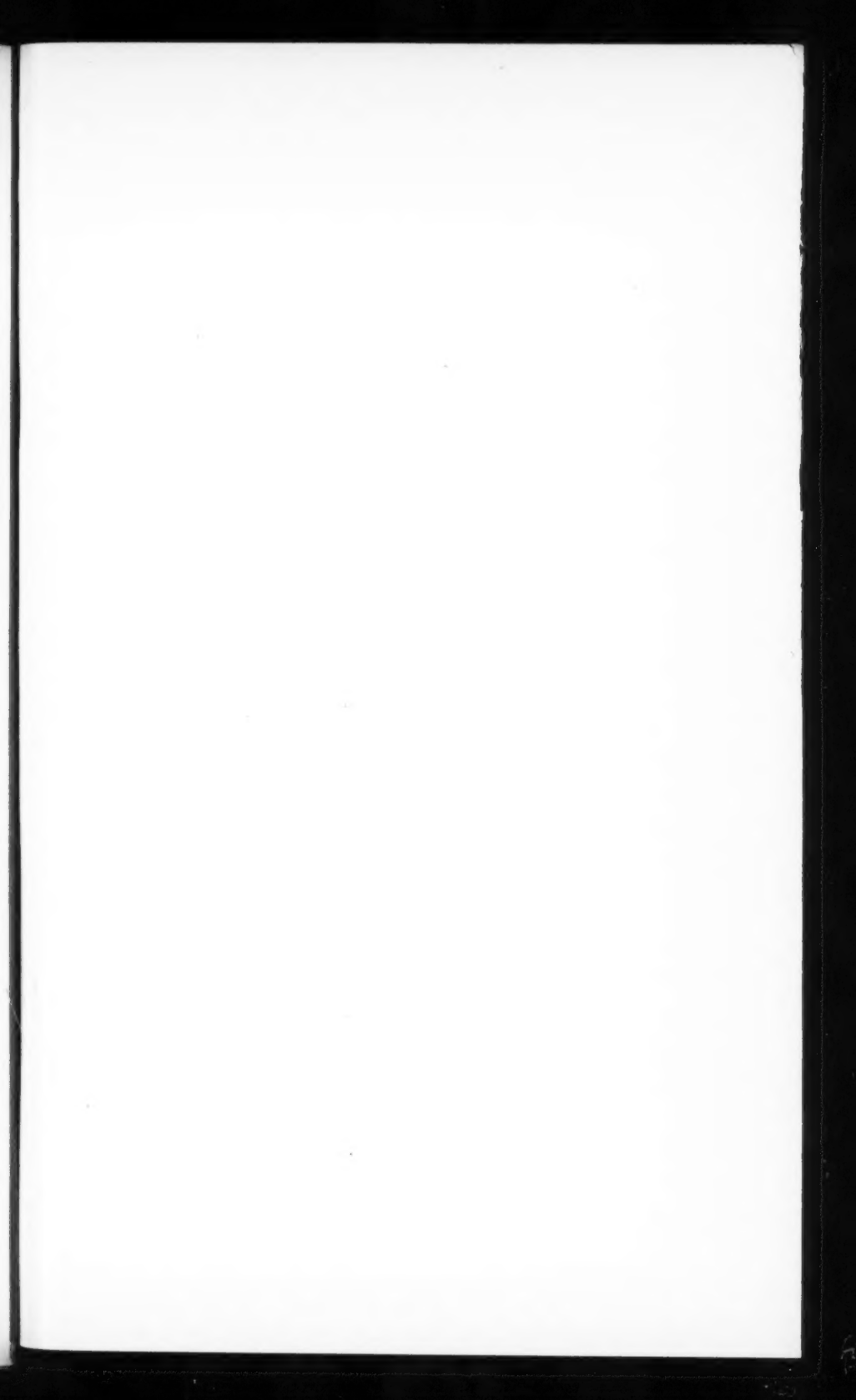
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*S. Johnson*

# COLUMBIA UNIVERSITY QUARTERLY

VOL. I.

DECEMBER, 1898

No. 1.

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SAMUEL JOHNSON, D.D.,  
FIRST PRESIDENT OF KING'S COLLEGE

## I

IN the building which is the heart's core of Columbia University as it exists to-day, in the room occupied by the successors of the Governors of the College of the Province of New York in the City of New York in America, stands the monument of old King's College—the royal crown which surmounted the College in pre-Revolutionary days; the portrait of Dr. Johnson; and the original cornerstone bearing the date 1756, firmly embedded in the walls of the new edifice as are the history and traditions of the old College in the life of the new University. The portrait, which was presented to the College by the painter, Kilbourn, represents Dr. Johnson very much as he is described by his friend and biographer, Chandler: "There was something in his countenance that was pleasing and familiar and that indicated the benevolence of his heart, and yet at the same time it was majestic and commanded respect. Benevolence was always a shining part of Dr. Johnson's character." A like impression is conveyed by the portrait of Dr. Johnson which is supposed to have been painted by Smibert, the English artist who accompanied

Dean Berkeley to America, and which still hangs in Dr. Johnson's study in the house he occupied in Stratford—a room that President Gilman has described as “one of the shrines of American education.”

Dr. Johnson was, by instinct, both a student and a teacher. He seems to have craved knowledge and lost no opportunity of acquiring it, and he was equally ready to impart it to others. Born in Guilford, Connecticut, on October 15, 1696, of intelligent but not highly educated English parentage, he evinced unusual capacity at a very early age. He mentions as one of his earliest recollections finding in a book of his grandfather's several Hebrew words which no one could explain further than to tell him that they belonged to the original language in which the Old Testament was written. This but increased his desire for learning; and by the time he was fourteen he was able to enter the “Collegiate School,” as it was then called, which had recently been established at Saybrook. It was not until after his graduation that the school was removed to New Haven and christened “Yale College.” The curriculum was meagre. “The utmost as to classical learning that was now generally arrived at,” says Johnson, in his autobiography, “and, indeed, for twenty or thirty years after, was no more than to construe five or six of Tully's orations, and as many books of Virgil, poorly, and most of the Greek Testament,” with a portion of the Hebrew Psalter. Hebrew was Johnson's favorite subject, and he distinguished himself as a student and gained the reputation of being the best speaker in College. He did some teaching while an undergraduate, and upon obtaining his degree he opened a school in Guilford. Meantime, he read and studied industriously, with a view to entering the ministry; and on March 20, 1720, he was ordained in the Congregational Church, having been, according to his own statement, “a preacher occasionally ever since he was eighteen.” His desire to remain near the College and its library induced him to settle in West



Haven, and here he remained for about two years. It was with some hesitation that he accepted Presbyterian ordination; and further study and reflection eventually convinced him that its validity could not be maintained and that it was his duty to enter the Church of England. Several of Johnson's college friends were led to a like conclusion, but only Johnson and two others were able "to withstand the alternate fury and entreaties of their friends." That the opposition to this step was violent and bitter can well be understood, for Puritan theology was then predominant in Connecticut and almost universal; his family and friends were all Congregationalists and strongly opposed him; there was not a single Episcopal clergyman settled in the colony, and it was necessary for him to go to England to take orders. The difficulties in his way were great, and the opposition growing out of the religious fervor, savoring so strongly of the bigotry which then existed, called for no small degree of courage and independence. But having reached a conclusion which satisfied his conscience, Johnson proceeded to put it into execution, and neither then nor subsequently did he hesitate in the course which he laid out for himself.

Proceeding at once to England, he applied for ordination, and was shortly admitted to priest's orders. Doubtless the courage which he evinced in thus demonstrating the sincerity of his convictions and the earnestness of his purpose were appreciated, for he was accorded a most cordial welcome by the English clergy. The warmth of his reception was enhanced by his genial nature and social qualities, for he was a clever and entertaining talker and possessed an inexhaustible fund of good humor. The distinctly human quality which characterizes the diary that he kept during his seven months in England goes far to explain the number of lasting friendships which he made during this period. Received and entertained by the leading men of both Oxford and Cambridge, honored with a Master's degree by both universities, it is easy to

surmise how deep and broad an impression was made upon him by both of these seats of learning. Keenly appreciative of all that he saw, he was no less ready to impart his information as to the conditions existing in America. Nor did he lose the opportunity afforded by this visit to urge the importance of establishing the episcopacy in America. This was to his mind a matter of the greatest urgency and during the remainder of his life was the object of his unceasing endeavor.

Returning to America in September, 1723, he accepted the rectorship of the parish of Stratford, Connecticut. There he found strong adversaries in many of his old associates among the Congregationalists, and he was made to feel keenly the intolerant spirit of the age; but he met all attempts to embarrass his work and drive him away with perfect cheerfulness and good temper, answering all attacks with such entire frankness and courtesy that he soon gained, not only the affection of his parishioners, but the respect and consideration of his adversaries. He was noted for his hospitality. Indeed, his friend, Dr. Chandler, says that "for the greater part of his life he kept what may be called a public table," which was frequented not only by his parishioners, the very poorest of whom were made welcome, but by the clergy of the neighboring towns and by many of his large acquaintance; "and at Christmas and other great festivals his house was thronged for several days together." His work was by no means limited to his parish, however, for he soon became the leading spirit among the Episcopal clergy in New England and the northern colonies, defending and explaining the position of the Church in the pamphleteering controversies which were carried on in those days so extensively, and conducting a voluminous correspondence with the Society for the Propagation of the Gospel, then the missionary agency of the Church in America, with the Archbishop of Canterbury, with the Bishops of London and Oxford, and with other representative clergy. He was the trusted ad-

viser of the Society, and exercised a supervision over its numerous missions almost like that of a bishop over his diocese, but he never ceased to urge the necessity of giving America its own bishops.

In 1725 he married Mrs. Charity Nicoll, the widow of Benjamin Nicoll. By her he had two sons, William Samuel, who subsequently became the first President of Columbia College, and William, who was at one time a tutor in the College, but who died while in England just as he was about to take orders. Dr. Johnson's home life was of the happiest, and he delighted in the quiet afforded by his country parish, for, while distinctly a man of action when occasion demanded, he was by taste a student. With Greek, Latin, and Hebrew he was thoroughly conversant, and he seems to have had some knowledge of French and Italian. His reading was very extensive, and he was interested in literature and science generally as well as in philosophical and theological writings. No work of merit which appeared in England escaped his notice. In writing to one of his friends he remarks: "I am particularly thankful for the intelligence you have given me about books, a subject I shall always be glad our correspondence may turn upon, for I want very much to know what passes in the learned world." He sought the society of scholars and was sought by them both in this country and abroad. As early as 1743 his distinguished services to the Church were recognized by the University of Oxford, which conferred upon him the degree of Doctor of Sacred Theology. In his diploma he is described as "*Reverendus vir Samuel Johnson artium magister viginti annis elapsis, Fidissimus ad Novam Angliam Missionarius in oppido Stratford de Provincia Connecticutensi, Enthusiasticis Dogmatibus strenue et feliciter conflictatus, Regiminis Episcopalis Vindex acerrimus, Demandatam Curam prudenter adit et benevole; indefesse ita et potenter administraverit; ut, incredibile ecclesiae incremento, summam sui expectationem sustinuerit plane et superaverit.*"

The respect in which his opinion was held finds an interesting illustration in the manner in which Bishop Berkeley accepted Dr. Johnson's comments upon his philosophical writings. Johnson adopted Berkeley's system, but infused into it an originality which made it largely his own, and the intellectual sympathy between the two men resulted in a warm and lifelong friendship. During the two years in which Bishop Berkeley resided in this country, while he was endeavoring to effect the establishment of a college in Bermuda, their relations became close. Upon Berkeley's return to England, after the Bermuda project had been abandoned, it was through Johnson's influence that he deeded his farm to Yale College as an endowment for a fund for the encouragement of Greek and Latin scholarship, and that he secured for the College a library which President Clap pronounced "the finest collection of books that had then ever been brought to America." That Johnson should thus have sought to secure benefactions for Yale College is an instance of the liberality which characterized the man, for Yale had treated him and the Church which he represented with a harshness inspired by bigotry, and he might well have considered himself absolved from any obligation to her as an Alma Mater; but no such petty feeling ever seems to have influenced him, and, looking at Yale only as he thought she should be and not as she then existed, he sought, by every means in his power, to advance her interests.

A recent writer, Dr. Adam Leroy Jones, in his monograph on *Early American Philosophers*, gives to Dr. Johnson the high rank which by right belongs to him among the thinkers of his day. "As a scholar," says Dr. Jones, referring to Johnson, "he was, perhaps, unsurpassed by any American of his time. . . . In his thinking he was careful and independent. He came to new questions with an openness of mind and a candor that was remarkable at a time when prejudice was universally predominant."

For a time, as has been already noted, Dr. Johnson con-

ducted a school at Guilford, and during his ministry he prepared many students for both the college and the Church. He seems to have recognized that education was a science, and to have studied and practiced it as such, applying to it the philosophical reasoning which guided his opinions upon more abstruse subjects. His own experience of college training was supplemented by a knowledge of the methods and range of study pursued at Oxford and Cambridge, and his writings show that educational methods had been the subject of his careful observation and mature reflection.

The opinion of Dr. Johnson's contemporaries as to his capacity as a teacher is expressed in a letter written to him by Benjamin Franklin, at the time when the establishment of a college in Philadelphia was in contemplation. Franklin, urging him to accept the presidency of the institution, wrote: "I think, moreover, that talents for the education of youth are the gift of God, and that he on whom they are bestowed, whenever a way is opened for the use of them, is as strongly called as if he heard a voice from heaven." Dr. Johnson's theories of education are set forth in a work which Benjamin Franklin published in 1752, under the title *Elementa Philosophica*, which was used as a text-book in the college at Philadelphia and subsequently in King's College also. Towards the young student he was deeply sympathetic, and he evinced a keen appreciation of the working of the child mind. His attitude towards children is expressed in quaint but picturesque language in a passage in which he says: "So that it seems evident that those little creatures [children] from the beginning do consider, reflect, and think much more than we commonly imagine. . . . Hence, also, it appears that we ought to think little children to be persons of much more importance than we usually apprehend them to be; and how indulgent we should be to their inquisitive curiosity, as being strangers; with how much candor, patience, and care we ought to bear with them, and instruct them; with how much decency, honor, and integrity we ought to treat them; and how care-

ful it concerns us to be, not to say or do anything to them or before them that savors of falsehood or deceit, or that is in any kind indecent or vicious. *Pueris maxima debetur reverentia* is a good trite old saying." The author of *Early American Philosophers* remarks, in connection with the passage quoted, that "this respect for childhood is one of the strongest notes in Johnson's educational doctrine. It seems very remarkable to find such a principle so clearly expressed at a time when Jonathan Edwards could publicly assert that children were like little vipers." No less contrary to the prevailing Puritanic theory and practice was Dr. Johnson's rule that study should be made a pleasure and that "care should be taken and means contrived . . . to put and keep them [the students] always in a good humor." Dr. Johnson held that teaching should proceed from the general to the particular, from the concrete to the abstract; that the personality of the child should be respected and that his work should be made attractive to him; and that especial care should be given to the development of the moral side of character. The practical application of Dr. Johnson's theories is happily illustrated in his relations to his sons, as revealed by their letters, which show that there existed between them not only an unusually strong tie of affection, but also the most perfect sympathy and understanding. Evidently Dr. Johnson's attitude towards the young was no less genial, no less broadly humanitarian, than that which he bore towards the men whose friendship for him is so warmly expressed in the correspondence which kept them in touch with him and gave him, while secluded in the little village of Stratford, the wide horizon and broad sympathies of a citizen of the world.

Such was the man who, in the early half of the eighteenth century, was selected as the one individual competent to take the leadership in the movement for the establishment of a college in New York. The idea had been suggested as early as 1703, but did not take form



until 1746, when an act was passed for raising money by lottery in the colony "for the encouragement of learning and towards the founding a college within the same." Evidently Dr. Johnson was consulted early in the movement, for in 1749 we find Bishop Berkeley writing to him: "I am glad to find a spirit of learning prevails in those parts, particularly New York, where you say a college is projected, which has my best wishes." This was in reply to a letter from Johnson, asking advice in regard to the college, and the Bishop goes on to say: "I would not advise the applying to England for charters or statutes (which might cause great trouble, expense, and delay), but to do the business quietly within themselves. I believe it may suffice to begin with a President and two Fellows. If they (the Trustees) can procure but three fit persons I doubt not the College from the smallest beginnings would soon grow considerable. I should conceive good hopes were you at the head of it. . . . Let the Greek and Latin classics be well taught. Be this the first care as to learning. But the principal care must be good life and morals, to which (as well as to study) early hours and temperate meals will much conduce. If the terms for degrees are the same as in Oxford and Cambridge, this would give credit to the College and pave the way for admitting their graduates *ad eundem* in the English universities. . . . I would advise that the building be regular, plain and cheap, and that each student have a small room (about ten feet square) to himself. . . . Colleges from small beginnings grow great by subsequent bequests and benefactions. A small matter will suffice to set one agoing. And when this is once well done there is no doubt it will go on and thrive." This letter was laid before the trustees of the new College by Dr. Johnson, and in writing to Bishop Berkeley, a few months later, he says: "They [the Trustees] are very thankful for the notice you so kindly took of what I had mentioned to you in their behalf, and will form their College upon the model you suggested to me."

In pursuance of the powers conferred by the act for raising moneys for a college, the Trustees therein named invited Dr. Johnson to accept the presidency. He had already declined the nomination to a similar position tendered to him by Benjamin Franklin and other representatives of the Philadelphia college; and he was very reluctant, both on account of his age and his associations, to remove from Stratford, where he had now been rector for upwards of thirty years. He was also influenced by a great dread of the smallpox, to which he would be exposed if he came to New York. It was urged upon him, however, that he alone could fill the office, and that, unless he consented to accept it, the project of establishing the College would be abandoned. The last consideration doubtless had great weight with him, as he realized the pressing need for such an institution in the colony and was most anxious that it should be supplied; and this argument was pressed upon him by the most prominent and influential men of the city. By none was it urged more strongly than by Dr. Johnson's step-son, Benjamin Nicoll, who was at that time a lawyer of distinction in New York, and who is spoken of as having been "the life and soul of the whole affair." With many misgivings he finally wrote that he would make the trial, though, as he says, he was "extremely fearful" whether he should be able to answer the expectations of those who called him. In April, 1754, he came to New York, and the Vestry of Trinity Church thereupon unanimously chose him as an assistant minister. During the year preceding his arrival a violent controversy had been waged by William Livingston and other Presbyterians against the granting of a royal charter to the College, which, they maintained, would render the College a mere appendage of the Church of England, and would exclude the members of all other denominations from participating in its advantages. Wholly unwarranted as was the opposition so engendered, it resulted in delaying the granting of the charter, in depriving the College of one-half of the

moneys which had been raised by public lotteries, and in creating much bitter feeling. Dr. Johnson participated in the controversy. He had already taken the ground that no educational institution had the right to place any restraint upon liberty of conscience, or upon entire freedom of action on the part of the individual in religious matters, as a condition of enjoying the privileges of public education. This expression of opinion was called forth by an attempt on the part of the authorities of Yale College to prevent students whose parents were Episcopalians from attending the Episcopal Church. Against this Dr. Johnson protested with a vigor which left no doubt of his own convictions, and in replying to the congratulations of the President of Yale upon his own election he says: "I thank you for your kind congratulations on my being chosen President of their intended College at New York, and I shall desire by all means, if I undertake it, to hold a good correspondence not only as Colleges but as Christians, supposing you and the Fellows of your College act on the same equitable, catholic, and Christian principles as we unanimously propose to act upon."

Despite opposition, the Charter incorporating the Governors of the College of the Province of New York in the City of New York in America, and providing for the establishment of King's College, passed the seals October 31, 1754; and the terms of the instrument sufficiently refute the assertion of Livingston and his associates, for, while it provides that the President shall be a member of and in communion with the Church of England, and that a collection of prayers from the liturgy of that church shall be read in the College, it expressly prohibits the enactment, by the Governors, of any statute or ordinance which shall "exclude any person of any religious denomination whatever from equal liberty and advantage of education, or from any of the degrees, privileges, benefits, or immunities of the said College on account of his particular tenets in matters of religion." The Governors first appointed in-

cluded the Archbishop of Canterbury, the rector of Trinity Church, the senior minister of the Dutch Reformed Church, and the ministers of the Lutheran, French, and Presbyterian Churches. President Johnson's assertion that it was the intention of the founders to conduct the College upon "equitable, catholic, and Christian principles" received further confirmation at the very first meeting of the corporation, when it was voted unanimously to petition for an additional charter providing for the establishment of a professorship of divinity according to the doctrine and discipline of the Dutch Reformed Church. The same broad and liberal spirit which characterized Dr. Johnson's earlier life was apparent in his attitude and that of his associates towards the College.

JOHN B. PINE

[To be concluded in the March number.]

#### COMMENCEMENT WEEK, 1898

COMMENCEMENT week opened on Sunday, June 5th, with a service in Havemeyer Hall, attended by members of the graduating class and officers of the University, at which the Rev. Dr. Van Dyke preached the baccalaureate sermon.

On Tuesday afternoon President and Mrs. Low received the graduating class in the Library. After this reception the annual meeting of the Phi Beta Kappa was held.\* At the first annual dinner of the Society, held in the evening at the College Tavern, a considerable number of graduate members was present, and it was evident that the custom of holding such a dinner would prove to be one of the most pleasant features of Commencement Week.

On Monday, Class Day, the classes graduating from College held games on the Field in the forenoon, reviving

\* A list of the members elected from '98 and '99 is given on page 66.

for the last time their interest in top-spinning, mumblety peg, and similar innocent sports. The Class Day lunch was served at the College Tavern. The public exercises of the afternoon were held at the Gymnasium. The following were the officers and speakers: S. C. Worthen, president; F. H. Curry, vice-president; C. H. Edwards, secretary; J. Watson, treasurer; S. C. Worthen, salutarian; G. Roberts, historian; R. H. Sterns, presentation orator; J. S. Schlusel, prophet; F. P. Keppel, valedictorian. The class day committee consisted of Ernest Iselin, chairman, and Messrs. Watson, Westerfield, Symmes, Burke, and Iglehart. There was a dance in the evening at the Gymnasium. A class dinner was held later in the week, after which the students marched in a body to the College buildings, taking leave of them with singing.

At Barnard, also, class day exercises were held. The following were the officers and speakers: Miss Meyer, president; Miss Wells, secretary; Miss Hughan, historian; Miss Wells, prophet; Miss Stern, poet; Miss De Hart, presentation orator.

Commencement Day was not only the first to be celebrated on the new grounds, but the first in the history of the University to be celebrated within our own walls. Fortunately the weather was favorable, and the unprecedentedly large number of alumni and friends of the University who attended the various exercises of the day were enabled to enjoy the beauty of the new buildings and the new site and to become familiar with their unusual physical advantages. At half-past ten the officers of the University and the members of the graduating classes assembled in the Library, and, under the direction of Professor Perry, the Chairman of the Committee of the University Council, and his assistants, marched across the South Court, proceeding to the north entrance of the Gymnasium by way of 116th Street, the Boulevard, and 120th Street. The procession included more than seven hundred officers, students, and alumni, and extended over four blocks; and the

sombre line of caps and gowns, broken only by the brilliant colors of hoods and tassels, presented a singularly dignified and picturesque spectacle.

The exercises of the day began promptly at eleven o'clock. Prayer was offered by the Rev. Dr. Duffie, Chaplain Emeritus of the University. President Low then spoke as follows :

GRADUATES OF COLUMBIA UNIVERSITY :

It has taken 144 years of time, and the cumulating influence of several generations of men, to create the University which to-day confers upon you the academic honors that you have made your own. These buildings, on the other hand, stately as they are, have been erected in a little more than two years; and they have been carried from foundation to roof, to borrow a happy phrase from the Rev. Dr. Storrs of Brooklyn, "upon the point of a pencil." The development of the University was not planned in the same deliberate way by those who laid its immaterial foundations in 1754. They rather planted a seed, satisfied that, under friendly conditions, it would develop into a great educational tree with wide-spreading branches; and their hopes were not disappointed. In the contrast thus suggested between these two developments of the visible and the invisible university, there is, I think, a suggestion worthy of your consideration at this particular epoch in your lives. No life can be planned, no character can be built up, upon the basis of exact calculation and formal design, such as the architect furnishes to the builder. Life and character are intangible things, and, like the invisible university, they are the result of growth. They are not made out of hand. All growth that endures is slow, and every day that passes contributes something to it. No day can be considered unimportant in the contemplation of the result. If your lives as scholars and as men are to reflect the benefit of the work that you have done in Columbia University, it must be because here have been planted in you seeds of character and of scholarship which you yourselves will develop by careful self-control and patient industry, as the days of your lives follow each other with rapid tread. What can be done for you in such matters has been done here. It rests with you to determine what you will do with the seeds of power that have been planted in you in this nursery of strong men.

During all these years, Columbia has conferred upon her sons the right of eminent domain in many a field of scholarship, but she herself for forty years has been, in a sense, a dweller in tents. If this reminds us again, as it should, that the University is not so much the buildings that we occupy as the life that fills the buildings, the spirit that breathes in the atmosphere, the memories and the traditions that cluster about our famous, our revered, and our beloved names; it very properly adds, nevertheless, to our rejoicing that, now at last, Columbia once more has a home of her own, and a home, I gladly think, not wholly unworthy of



the high things she stands for in this majestic and cosmopolitan city. I congratulate you that you are to receive her degree to-day as from a mother who bestows her gifts at her own fireside. Already there seems to me to be a benediction upon the place from our historic past, and you are the first to go forth from these halls on the quest that shall bring to them the laurels and the blessings of the future.

It is true that we hold our Commencement to-day in the Gymnasium; but then, we have never had a Gymnasium before, or any other suitable building, in which to hold it. It is true that we are hoping to have an academic theatre, one of these days, in which the commencement, like the University, will be at home; but at this time and on this occasion we may well "thank God and take courage," because of what we have, rather than emphasize what we still desire. Otherwise I fear we should deserve to be likened to that querulous man who complained, even in Paradise, that his halo didn't fit.

In the meanwhile, it may be pointed out that there is no small significance in the fact that the "aula" of the University, the Academic Theatre, is to be built upon the Gymnasium. There is something about the arrangement that is distinctly Grecian. It was at the Olympic and the Isthmian games of Greece, as Bishop Satterlee reminded us a year or two ago at one of our alumni dinners, that the Greek athletes and the Greek poets both met in friendly rivalry. There is a very distinct connection between bodily vigor and sustained intellectual power. I should be the last to deny that the spirit of a man may master even the infirmities of his flesh; but I also know that "the sound mind in the sound body" is the ordinary condition for the greatest effectiveness. If you want an illustration of this, consider the great bodily vigor of Gladstone, and you will perceive that this was an element in his long and wonderful career, not less essential than his mighty intellect and his masterful spirit. Therefore, I am glad that Columbia bears emphatic testimony to the importance of training the body of the scholar as well as his mind; but I ask you to observe that it is the Theatre that is to be upon the Gymnasium, and not the Gymnasium upon the Theatre. As long as we remember this, we shall preserve the right relation between these things.

This commencement is noteworthy, not only as the first Commencement ever held by Columbia in her own domain, but also because it is being held at a time when the country is at war. Some, who otherwise would be with us, both officers and students, are now in the service of the country either in the camp or on the sea. It will help us to realize what a span of 144 years means, to recall that it was in the year after the College first opened its doors in 1754, that Braddock was killed on his way to Fort Duquesne. The French and English war that followed, for supremacy on this continent, was fought to the end without interrupting the regular and peaceful work of King's College. On April 6, 1776, however, the College building was taken by the revolutionary authorities for military purposes, and it was used to the end of the war by one army or the other, both as a barracks and as a hospital. The work of the College in the meanwhile was suspended and was resumed only at the end of the

war, presumably in 1783, as the first degrees after the Revolution were conferred in 1786. This war, as it broke up our work, affected us also importantly in another respect; for it changed our name. The college that went into the Revolutionary war as King's College, came out of it as Columbia College. I have heard it said that this was the first instance of the use of the name Columbia, in any connection.

The War of 1812, on the other hand, the Mexican war, and the Civil war passed over the head of the College without interrupting in any way its regular and peaceful work; and now once more we see the same phenomenon. Yet to all the wars, as to this war with Spain, men of Columbia have gone. The graduates have laid aside their life tasks, and with the trained intelligence the College gave them have hazarded their lives unto the death at the call of country; the young men, the undergraduates, have left the peaceful shades of Alma Mater to plunge, without counting the cost, into the thick of battle. What does it signify, this repeated self-sacrifice of individuals in the presence of war, this uninterrupted attention on the part of the College and the University to the duties of peace? Happy shall we all be, if we learn its deep significance. It means, indeed, that the University does a work of such continuing importance that the work may not be interrupted even by war, except when war makes it impossible; but it also means that our University, with its splendid buildings, its great equipment, and its large endowments, does not exist for itself—that the education to be had here is not given for selfish uses, but is to be received as a sacred trust for country and for mankind; and it means that when any of us are tempted to forget that life is service, and life is sacrifice, we have only to turn, in order to recover the true ideal, to our own brothers of Columbia, who, in war after war, have placed their lives at the service of the country. It is not everyone's duty to go to this war or to any war; but I thank God that to-day, as always, some of our men have gone, and are thus teaching the lesson, which alone gives value to any education that the University can give, that it is only by self-surrender in one form or another that a man may truly live.

After the award of prizes and fellowships, the degree of Bachelor of Arts was conferred upon 67 candidates; of Bachelor of Law, upon 84; of Doctor of Medicine, upon 145; of Engineer of Mines, upon 19; of Civil Engineer, upon 21; of Electrical Engineer, upon 25; of Metallurgical Engineer, upon 2; of Bachelor of Science, upon 20; of Master of Arts (in course), upon 86; of Doctor of Philosophy, upon 22. The honorary degree of Master of Arts was conferred upon George Frederic Kunz, John Fritz, and Alphonse Fteley; and the degree of Doctor in Sacred Theology upon the Rt. Rev. William Neilson McVickar, Coadjutor Bishop of Rhode Island, of the class of '65.

The following are the texts of the addresses made by the President in conferring the honorary degrees :

*To Bishop McVickar.*

Omnes inter ecclesiasticos præeminens, tu, sane, vir recte reverende, ob doctrinam, fidelitatem, nec non et pietatem tuam optimo iure hodie nominaris. Cuius rei haud immemor, admitto te ad gradum eundum Doctoris in Sacra Theologia; tibi que omnia iura et privilegia ad istum gradum attinentia do et concedo.

*To Mr. Kunz.*

In doctrina tua inque studiis tuis non solum scientia, sed ars etiam facile invenitur—scientia quidem in thesauris terrestribus investigandis, ars autem in pulchritudine eorum exponenda. Quam ob rem admitto te ad gradum Magistri in Artibus, tibi que omnia iura et privilegia ad istum gradum attinentia do et concedo.

*To Mr. Fritz.*

Qui divitias e penetralibus terræ ad usum artium vitæ communis calide adhibeat, ille sine dubio de patria optime commeruit. Talibus studiis multos per annos versatum, admitto te ad gradum Magistri in Artibus, tibi que omnia iura et privilegia ad istum gradum attinentia do et concedo.

*To Mr. Fleley.*

Ingeniariis peritis qui famam patriæ nostræ sæpe et mirifice auxerunt, magna laus debetur et debetur; inter quos tu, vir perdocte, omnium consensu recte nominaris. Quam ob rem admitto te ad gradum Magistri in Artibus, tibi que omnia iura et privilegia ad istum gradum attinentia do et concedo.

Upon the conclusion of the formal exercises luncheon was served in West Hall for the alumni, and during the early part of the afternoon meetings were held by the Alumni Associations of the College and of the School of Mines. Class re-unions were held upon the invitation of the Committee of the Alumni Council, which had charge of all the arrangements of the afternoon," by the following classes: College, '61, '63, '67, '72, '73, '78, '81, '82, '85, '87, '88, '90, '92, '93, '94, and '96; and Mines, '67, '80, '81, and '95.

Shortly after three o'clock the alumni and officers of the University, numbering over seven hundred, formed in procession, under the direction of the grand marshal, Howard Van Sinderen, '81, and his assistants, and marched to the Mapes Memorial Gate, at 119th Street and the

Boulevard. The gate was then formally presented to the University, in behalf of the donors, by Lloyd Collins, '94. In response, President Low spoke as follows:

MR. COLLIS, GENTLEMEN OF THE COMMITTEE, AND FRIENDS OF HERBERT MAPES:

On behalf of Columbia University, I accept with pleasure and as a sacred trust, this gate given as a memorial of Herbert Mapes, a member of the Class of 1882 in the School of Mines. The gate is beautiful; but it is not more beautiful than it is appropriate as the memorial of the young life that ended just as it was reaching the threshold of manhood. Even in his short career in the University Herbert Mapes lived long enough to accomplish two things. He had endeared himself to his companions and he had worthily represented Columbia before the world in one of the ways that a student may. This memorial of him will be precious to all who loved him; and it will bear witness, we trust, for many generations, to the regard in which he was held by those who knew him well. I hope that every youth who passes through these gates will catch some portion of his spirit. If they do, those who come in will bring to the University a loyalty throbbing with pride and affection; and those who go out will find themselves better nerved for any task because Columbia's name and fame have been committed to their keeping.

The procession then proceeded to the gate on 120th Street, which had been given to the University by the Class of '82. The gate was formally presented, in behalf of the class, by Gerard Romaine, '82, who spoke, in part, as follows:

Surrounded as we are by evidences of costly benefactions to our Alma Mater, most of which have been presented in the simplest manner, and whose donors' liberality is frequently recorded only in the minutes of the Board of Trustees, it would seem as if the comparatively insignificant contribution which our class has made was being unduly magnified to-day. And yet, Mr. President, it pleases us and flatters us as members of the class to think that it is not the material value of our contribution which is thought worthy of distinction, but the spirit which has animated us to show in some manner a token of our interest in the affairs of the University. . . .

I have said that our interest in the affairs of the University has been of steady growth, Mr. President, and that it has not lost its vitality is shown by the fact that after the announcement of our intention to so devote the fund, more than one-half of the total amount was subscribed, mostly within the past year and more than fifteen years after graduation. That the subscription is representative of the class as a whole, is also proved by the fact that out of a membership of fifty-three living graduates, we have received contributions from forty-four, some from such distant points that the subscribers may never see the object to which they have contributed.

To you, Mr. President, and to the members of the Board of Trustees with whom we have come in contact, I desire to offer the thanks of the class for the manner in which you have met us more than half-way in adopting any suggestions that would facilitate the accomplishment of our purpose. We feel that it is due to your consideration that it has become our privilege to be the first to erect upon these grounds a class memorial; and we have a sense of pride in the fact that, whatever form other class memorials on these grounds may take, the only approach to them from the north will always be guarded by the Gate of the Class of '82.

In accepting the gift, President Low said:

GENTLEMEN OF THE CLASS OF '82 OF COLUMBIA COLLEGE:

It is with singular pleasure that I accept from your Class, on behalf of the University, this gate that opens from the University grounds towards Teachers College. Yours is the first Class thus to associate itself in a permanent way with the new home of the University; and I hope that, as you have had many followers in other respects, so you will have many successors in this.

It is partly because our American colleges have been able to call forth so generally such evidences of affection on the part of their alumni that the American college has been so great a power in the land. It is gratifying to know that when, as in your own case, the College has expanded into the University, the old love is not weakened, but embraces the whole University in its affections "as bone of its bone and flesh of its flesh."

I thank you heartily, on behalf of the University, for this beautiful gift and for setting so welcome an example. All who pass to and fro through this gateway will join with me in thanking you for making this provision for their comfort.

The procession then marched to the Gymnasium, where the first anniversary meeting of the alumni was held, and the following addresses delivered:

ADDRESS OF THE CHAIRMAN, DR. WILLIAM H.  
DRAPER, '51

ALUMNI OF COLUMBIA UNIVERSITY:

Do you realize what a large and portentous throng this address has come to signify? It means not only the true sons born to Columbia College since her maternal history began, nearly one hundred and fifty years ago, but it includes the great numbers of adopted, but legitimized, sons who have been swept into the capacious lap of Alma Mater since her generative powers have been enlarged by her university equipment. And, further, we have to acknowledge for her the most mysterious and glorious achievement in her progeny which makes it possible for us to say that we have *alumnæ* as well as *alumni*. This, therefore, is a momentous occasion on which we speak to such a representation as the Alumni of Columbia University.

Its significance and importance are expressed truly in that great mystery of life-birth. A joy kin to that when a man is born into the world is the true expression of the sentiment we all feel in the creation of every new cohort which Alma Mater provides to assure us of her perpetual energy. But it is not only the natural joy which the alumni take in welcoming the latest born, which ought perhaps to be the keenest in the birth of new sisters to our brotherhood; on this occasion there is another emotion which to-day fills our hearts. It is the interest which we naturally feel in this new home of the parent. This interest springs from the instinct that the home should be worthy of the ancestor, and should be fitted to preserve the glories of its past renown as well as to provide for the splendid possibilities of its future. That our curiosity and jealous solicitude on these points for the honor and welfare of our Alma Mater are amply rewarded beyond all desire or expectation on this occasion, I am sure the imposing events and ceremonies of this day abundantly testify.

We have before us in this vision on Morningside Heights a miracle that suggests nothing so much as the birth of Minerva from the brain of Jove, all panoplied. How the miracle was conceived lies hidden perhaps in the genius possessing the spirit with which nature seems to animate whatever bears the name of Columbia. How it has been wrought you all know. I will not allude to the chief author of the achievement further than to remind you that he is an alumnus and that he should be for us all an inspiration and an example. I would emphasize this statement because it illustrates what must remain true of every institution like this for all time, that upon the alumni rest the responsibilities of preserving the privileges of its glorious birthright.

And this leads me to suggest that this occasion has another special aspect for our consideration; many of us have been present at the dedication ceremonies of each of the noble buildings on this site, when from these serene heights we have been permitted to contemplate the contrasts of the peace and light which shine on this historical spot with the toil and turmoil of the city below. We have just now dedicated the gates through which the youth of future generations must pass to reach the penetralia of the temples on this hill of knowledge; it only remains for us who will in future come to revisit our Alma Mater in her new home to dedicate ourselves to the honor and glory of Columbia University. Thus we should make an annual pilgrimage at the time of her Commencements for the renewal of our allegiance and congratulations; and, as a past master in the proprieties of the mysteries of Lucina, I can assure you that these congratulations are the most ancient as they are the most august occasions for joy. These festive joys will find their best expression in the annual reunions of classes and societies, which will keep alive the friendships and happy associations of college days, and may well serve to weave something interesting always in the way of literature and song into the future chapters of college life.

Another and a perennial function of these occasions, which may be necessary for some years, and upon which I would suggest that you



should lay especial stress, is to make each year the occasion of a concerted effort to raise as speedily as may be the means to crystallize the love and memories of Alma Mater in the solid rock and marble of the Memorial Alumni Hall, that will stand on these foundations which the University has laid for us and on which we are assembled to-day.

Now, gentlemen, it is my duty as the presiding officer of this occasion, with this brief introduction, to introduce to you the presidents of the Alumni Associations of this University, in order to give them an opportunity to assure you how these associations are throbbing with the life which animates every part of our University organism.

#### ADDRESS OF PROFESSOR VAN AMRINGE, REPRESENTING THE ALUMNI ASSOCIATION OF THE COLLEGE

Mr. Chairman, Ladies, and Gentlemen, Fellow Alumni: We are gathered here this afternoon to close an eventful day with some pardonable selfcongratulation.

In speaking upon the topic assigned to me, I scarcely know where to begin or how far to go. All that you see upon these grounds, all the varied exercises of this Commencement Day, are but the expression, in one form or other, of the influence, the growth, and the abounding life of Columbia College. The several admirable schools and faculties that are here in evidence are fruits of her loins. I am prepared to hear from one or more of the gentleman who will address you—I have heard such a thing seriously propounded—that the strength of Columbia lies largely, perhaps principally, in the professional and university courses; that *if*—there is a great virtue in an “*if*”—that if, for example, the Law School had not opportunely appeared in 1858; that if the School of Mines had not been, as it was, with great consideration and foresight, born in 1864, the College might, could, would, or should have become enfeebled and, possibly, have passed away. This is so far true that the College must be held accountable for the use made of its opportunities; that if—there is more virtue in this “*if*” than in the other—with the increased resources at her disposal, she had, at the times referred to, failed to extend the courses of instruction, there would have been indicated a spirit inconsistent with progress and allied to decay. But the failure did not occur: the schools *were* founded, and they and others are *what* they are, because they are the offspring, not of an old and weak, but of an ever young and vigorous mother; because, from the start, they were infused with the life blood of the College and endowed with her buoyant and faithful spirit.

At no time, during the existence of the institution, has it happened that an increase of funds has not been immediately followed, or more often anticipated, by a corresponding increase of educational facilities—sometimes in added courses, sometimes in added schools—and whether in courses or schools always, so far, on a settled plan, consistent with principles set forth at the very beginning, adhered to with pertinacity under all temptations and discouragements, adapted from time to time to changing and changed conditions, but never yet violently departed from.

Could our long-departed forefathers, who participated in the founding of King's College and in its earliest Commencement, have revisited us to-day, they would, at first, have been astounded at the ceremony and the magnificence that have replaced the simplicity with which they were familiar; they would surely have been surprised and grieved to find, among the stately temples that adorn this noble site, not one specifically dedicated to the ancient College, that is, at last, the producer of all. Except for this, they would, as they became accustomed to the outward semblance of affairs, have felt at home; for they must soon have become conscious of the dominating presence of the same spirit that directed the College in their day and has brooded over and controlled it ever since.

That spirit explicitly declared itself in the first document ever issued by the College. This prospectus states: "It is distinctly understood that as to Religion, there is no intention to impose on the scholars the peculiar Tenets of any particular Sect of Christians, but to inculcate upon their tender minds the great Principles of Christianity and Morality in which true Christians of each denomination are generally agreed;" that "the chief Thing aimed at in this College is to teach" the students "Sobriety, Godliness, and Righteousness of Life, . . . to train them up in all virtuous Habits;" and *then*, "a serious, virtuous, and industrious course of Life being first provided for," to instruct and perfect them in "all such useful knowledge as may render them creditable to their Families and Friends, Ornaments to their Country, and useful to the public Weal in their Generations;"—"the knowledge of all Nature in the Heavens above us, and in the Air, Water, and Earth around us, and the various kinds of Meteors, Stones, Mines and Minerals, Plants, and Animals, and of everything useful for the comfort, the convenience, and Elegance of Life." Here is struck the keynote of the whole history of the College; here is indicated the impelling motive of all her action and services: first, character and thorough training; then, accomplishment in letters and science, the whole range of learning, as fast and as far as means will permit and opportunity offers. This makes manifest the spirit that the fathers would have recognized, the legitimate and necessary fruits of which are all about us.

It was devotion to high Christian ideals, with freedom from strong sectarian bias, that enabled the College to send out scholars who became men of learning and light in the various religious communions: in the Episcopal Church, such men as the first two bishops of New York—the saintly Bishop Kemper, who devoted himself to the cultivation and organization of Christian influence in the great West and Northwest and ended his noble career as Diocesan of Wisconsin; the reverend and revered Dr. Hill, missionary in Greece, who founded, under the shadow of the Acropolis, a school for the education of Greek children, whose labors for the elevation of woman in Greece attracted the attention and received the gratitude of the government at Athens, by order of which he was, not many years ago, buried "with the honors of a taxiarch;" and in other churches such men of power as Dr. Mason, the great pulpit orator—the most distinguished, perhaps, of his time; Dr. Philip Milledoler, sometime President of Rutgers College and one of the founders of

the American Bible Society ; the Rev. Dr. Janeway, a theological writer of repute, an early promoter of the Theological Seminary at Princeton, of which he was long a director ; and a line of worthy successors of all denominations who do honor to the College that bred them and good to the communities for whose sanctification they labor.

It was by insistence, first, upon the cultivation of a "serious, virtuous, and industrious course of life," and then upon accurate accomplishment in whatever was undertaken, and not by professional schools and highly specialized courses, that the College became the happy Alma Mater of such men as Henry Cruger, the merchant prince and princely merchant ; Robert R. Livingston, the great chancellor, and greater still as the co-worker with Fulton, and his equal in service, in putting the first steamboat on yonder river ; John Stevens, the great engineer ; the linguist and mathematician, Henry James Anderson ; Hamilton Fish, one of the wisest and most skillful secretaries of state the United States ever had ; classicists like Moore and Anthon and Drisler ; and many other alumni, living and dead, whose names are as familiar to you all as household words.

It has been by steady adherence to the principles set forth in the first prospectus, and the order of their application there laid down, that the College has been enabled to do *all* that it has done—to influence the history of this country, in its political organization and character, in its material development, in arts and in elegant letters, far beyond what its straitened circumstances for many years, its necessarily restricted curriculum, and its limited number of students, would seem to warrant ; to contribute to the community so many men that embellish the annals of their time, in the Revolution and the constructive period immediately following it, in the Civil War and the subsequent reconstructive period ; and the same devotion will, doubtless, if this present war with a moribund representative of the Middle Ages should take on a wider significance and mark the beginning of a new departure for this Republic, place her sons where, in emergencies, they have always been found, among the foremost in action and in council.

In the complex organization that prevails here, the College discharges as high a function as it ever did : its relative importance has increased rather than diminished. By so much as the problems of life and government have become more intricate, by that much is necessity the more imperative to have, for their successful attack and solution, men who have had "an education in which the individual is cultivated, not as an instrument towards some ulterior end, but as an end unto himself alone," in which "his absolute perfection as a man, and not merely his relative dexterity as a professional man, is the scope immediately in view." The College has that sort of education for its distinct purpose. It differs radically from the other parts of the University in this. The professional schools and the specialized courses are to impart information and make men dexterous in certain defined and limited fields of thought and accomplishment ; the chief end of the College is not so much learning as training—to cultivate a habit rather than to fill the storehouse of the mind. Its great aim, to which everything else is subsidiary, is to confer

a *liberal* education—that is, to aid young men in becoming spiritually and intellectually *free*. A man is spiritually free just so far as he is possessed of a permanent will and power to do right; and he is intellectually free, just so far as he is able to control all his faculties and bring them, whensoever he pleases, to bear upon whatsoever he will. To ensure to the student the acquirement, so far as practicable, of this two-fold freedom, may be, to the general and unreflecting public, an unattractive and inconspicuous duty in its discharge, but it is, nevertheless, a supremely important one, that cannot be neglected without imperilling the honor and the safety of this University. It is the principal purpose for which Columbia was established and endowed; and, while the endeavor to attain it does not, by any means, preclude other great enterprises, yet, *in obligation*, it takes precedence of all other purposes and undertakings. It can not be satisfied, solely or chiefly, by professional schools however admirable, or specialized courses however extended and profound; it can be served, in its true meaning and integrity, only by the historic College that is your Alma Mater and mine.

ADDRESS OF DR. J. G. CURTIS, REPRESENTING THE  
ALUMNI ASSOCIATION OF THE COLLEGE OF  
PHYSICIANS AND SURGEONS

MR. CHAIRMAN, BROTHERS OF THE ALUMNI, LADIES, AND GENTLEMEN:

Thirty-eight years ago the College of Physicians and Surgeons became the Medical Department of Columbia College in name but not in fact. Seven years ago this alliance was happily altered to a union, in fact as well as in name. Since this union only four classes have graduated in medicine at the end of studies carried on wholly under the direct authority of Columbia University. It is, therefore, clear that the great majority of the medical alumni, whom I represent, are, in a sense, naturalized citizens in this place; brought in by means of the diplomas of their younger brothers, by a kind of reversal of the process by which a father's naturalization papers suffice for his minor children.

I accentuate all this deliberately, because it gives a deeper meaning to the loyal gratitude with which we wear the colors of Columbia, to the glad emphasis with which we declare that the medical school of which we are all so proud has received from the University full measure, pressed down and running over, of every higher influence, as well as of every material advantage. Especially do we owe it to the unflinching support given by the President and Trustees to the Faculty of Medicine that the difficult task of remodeling, extending, and lengthening our curriculum without suspending it, has been accomplished smoothly. Moreover, it calls for special acknowledgement that the governing board of the University recognizes what is not recognized everywhere, that it is not only the privilege, but the duty, of a teacher to do something beside teach—namely, to seek to extend knowledge by research—and that he should be granted the time necessary for this purpose.

At a gathering of the alumni of all the schools the question might well be asked, what is the significance of Medicine, not in relation to the community at large, but to the University itself? What does she here in cap and gown? To such a question my answer would be prompt and unhesitating: Medicine in the University stands for the essential unity of science pure and applied. The acts of applied science in every field are based upon innumerable truths established for their own sake, for the simple and noble purpose of advancing knowledge. On the other hand, innumerable researches undertaken for practical purposes have proved fruitless for these, but have rendered the great service of widening the bounds of pure science.

When Medicine takes her place among her sister faculties upon the steps of the academic throne, she presents herself clothed in a garment of achievement in which pure science and applied science are warp and woof, and both of her own spinning. We, her sons, are proud of our brother, the country practitioner, who struggles through the snow at midnight to his place of duty. We are proud of the surgeon on the field of battle, who wounds not to the death but to the life. Indeed, the deserts of such as these are known of all men. But we are proud also of that long line of investigators and discoverers whom, for more than two thousand years, we have been breeding and are breeding still, not only in our own departments of science, pure and applied, but in the kindred sciences.

Zoölogy and Botany are the historic children of Medicine. Yet so vigorous is the ancient mother, that it is but yesterday that she gave to them Huxley and Torrey and Asa Gray. It is but yesterday that she gave Helmholtz to Physics; to Chemistry, my brother alumnus of the College of Physicians and Surgeons, Remsen. The swing of every pendulum in the world still registers the pulse of the medical student Galileo; and it is because Galvani, the anatomist and physician, investigated the causes of the twitching of frogs' legs, that the galvanic current to-day loads the cannon of the battleship and transmits to long distances the gigantic power of Niagara. My friend the Professor of Philosophy will speak presently for pure science, as well as for his own calling. I shall listen, in behalf of Medicine, with all the eager interest of a blood relation, to his words about Pure Science; and as for Philosophy, I boldly lay my hands upon her very greatest name. For was not Aristotle an Asclepiad, a trained member of the hereditary guild of physicians of his time? Whoever shall have compared the psychological and the biological treatises of Aristotle with the rugged vagueness of Plato's biology in the *Timæus* will see that, much as "the master of those who know" owed to his teacher, Plato, he must surely have owed much also to another teacher, his own father, the physician of Philip of Macedon.

Nor may it be forgotten that, as regards the genesis of all universities, Medicine at Salerno has disputed with Law at Bologna the primacy of the Faculties. Certain it is that, before the rest, these two were in the field, and that after their model were formed those organized bodies of teachers and scholars which later received the name of universities. When, therefore, Medicine has paid her homage to that central authority which

at once dominates and represents all the Faculties alike, the words may be said of her—in quoting which one must first disclaim all intention of irreverence—"Whom she brought forth hath she adored."

ADDRESS OF WILLIAM ALLEN SMITH, ESQ., REPRESENT-  
ING THE ALUMNI ASSOCIATION OF THE  
SCHOOL OF MINES

After listening to the eloquent remarks of our honored friend, Professor Van Amringe, every one of us who is not a graduate of Columbia College now feels that perhaps a great mistake was made in his early education. All honor then to old Columbia College, with its long line of distinguished instructors and graduates; and all departments of the University will join in wishing continued prosperity to the College, and long life to its faithful and accomplished Dean.

Apart from its magnificent material foundation, the present glory and the auspicious outlook of our University lie, it seems to me, in the loyalty and enthusiasm of the representatives of each of its professional and theoretical schools. When the exercises of to-day are over, the impression left on the minds of all will be, I believe, that each one of these schools is, in its own way, a most important member of the educational body. But shall the eye say to the hand, I have no need of thee? It is in the adaptation and the perfection of the parts that the utility and the beauty of the whole consist. This is the true Columbia spirit, this is the spirit of a true university. And thus each branch may listen with cordiality and a benevolent tolerance to laudation of the other branches. Such cordiality and tolerance I now invoke, while I shall attempt to show that the School of Mines, and the Schools of Chemistry, Engineering, and Architecture, which have received their life and have naturally grown from it, form an important and even vital part of the University.

The two great pioneer universities of Bologna and Paris were founded on opposite principles and with different aims: the former was entirely professional, and was designed to prepare the student for a definite and practical career; the latter aimed at giving a general mental training, academic and speculative. In the later universities, prominence has sometimes been given to the one, sometimes to the other of these principles.

The modern high schools of learning have been largely moulded by their environment. To-day, in our teeming land, the professional or practical side naturally predominates; speculation sometimes precedes and theory usually follows practice; and it is well for the symmetry of our University that Philosophy and Pure Science have found a permanent home in Columbia. It is a mark of the condition of our times that the so-called learned professions are no longer, even popularly, limited to the old three: law, medicine, and theology. An engineer, a chemist, a geologist, an architect, is everywhere recognized as a member of a learned profession. The time and labor of special preparation required for enter-

ing the professions in the domain of Applied Science are, in our University, greater than for entering any of the other professions. And the mental ability and previous training of the student must be equally great.

Hence, brethren of Arts, of Law, of Medicine, of Political Science, of Philosophy, of Pure Science, I salute you in the name of the Applied Sciences, and ask your kind indulgence and sympathy while I point out three principal reasons why the men of my profession are entitled to be treated with peculiar fraternal respect.

First. When I look over the statistics of the graduates of Columbia since the first class from the School of Mines in 1867, and including the classes graduated in 1898, I find the figures to be very nearly as follows :

Graduates in Arts. . . . .	1,350
" " Medicine . . . . .	3,650
" " Law. . . . .	3,780
" " Applied Science . . . . .	1,160
" " Political Science (1881-98). . . . .	380
Total . . . . .	10,320

By reason of Columbia's central and commanding position and the equal celebrity of the faculties of all her professional schools, it is perhaps a fair assumption that the general demand for professional men stands in an approximate proportion to Columbia's supply. If this be so, how shall we explain that, in the thirty-two years named, Columbia has graduated 3,650 doctors, 3,780 lawyers, and only 1,160 engineers, chemists, and architects? A partial explanation of this discrepancy is that architects were first graduated in 1884, and electrical engineers in 1891. Shall we say in further explanation that all the world needs, or thinks it needs, doctors and lawyers, while only capitalists employ engineers, chemists, and architects? Let me, with all due respect, suggest another explanation, namely, that our doctors and lawyers work under very complex conditions, and upon capricious and shifting and often ingenuous material; thus more of them can find remunerative occupation, because the conditions of their work and the nature of the material on which they work are such that the result is less likely to be permanent.

Secondly. It is, to say the least, a very remarkable coincidence that, starting and keeping pace with the wonderful strides of the last half century in the material, hence the intellectual, and hence the moral development of civilized men, directly traceable to increased knowledge of the natural sciences and the increased number of trained professional men needed for the application of those sciences, another great world-movement has begun. I need hardly say that I refer to the entry of women into the learned professions. Before this later period there was here or there a notable but isolated example of a professional woman. But now look around you. What is the meaning of Vassar, Wellesley,



Bryn Mawr, Smith, Radcliffe, and a beautiful and inspiring part of our own institution, Barnard College?

As with all great world-movements, conservatism and male prejudice may regret and even deprecate some phases of this recent development. But facts may not be ignored. Women have come into the learned professions, and it seems they have come to stay. First and foremost we find them in medicine; next we find them in the practice of law and the preaching of theology; they are to-day studying and teaching history and political economy, many of them on the same plane as their male competitors. As for pure science, their minds seem to run that way; else how can it be explained that the first yearning of an emancipated young woman leads in so many instances directly to the study of biology?

So far has this movement progressed that no department of the University, except that for which I have to-day the honor of speaking, can longer be regarded as an exclusive place of training for professional men. Women have not yet entered, nor are they likely to enter, the professions demanding a thorough knowledge of the sciences which are the groundwork of all engineering. Our profession has come most opportunely, perhaps providentially, to the front; and until professional man, in order to retain his supremacy, is forced to retire into the citadel of superior physical strength and endurance, the last bulwark will be the professions based on the Applied Sciences.

Thirdly and lastly. The wonderful progress of civilization in all that pertains to the material advance and comfort of mankind is so evidently due to the increased knowledge and application of the physical sciences, that I will in passing only mention our mines, our factories, our smelting works, our machinery, and their products; our railroads, our ships, our amazing buildings, our water supplies, our sanitary appliances, our bicycles, our uses of electricity in varied and astounding ways, and our rapid transit.

In less degree only than free institutions and geographical position, Applied Science has contributed to bring our country, during long years of peace, to its present commanding position among the nations of the world, so that thoughtful men are everywhere admitting that, when the commercial supremacy of the globe passes from our great mother country, it will surely come to us.

Fellow alumni, we meet to-day amid these peaceful and beautiful surroundings. But the thoughts of all are irresistibly drawn to the conflict in which our beloved country is engaged. And here again Applied Science comes to the front.

I grant you, our 3,800 lawyers might have done much to bring on the war, and will doubtless see to it that military men do not monopolize the military honors; I grant you that some of these same lawyers are needed in our public life to vote supplies for the war and to arrange the terms of peace; I grant you that our 380 political science men will be able to explain how the war might have been avoided, and afterwards to tell lucidly how it all happened; and further I grant you that our 3,650 surgeons and physicians will come in as ministering angels after the bat-

tles, and perhaps during pestilence, which may God avert; but let me remind you that without the Applied Sciences and the men trained professionally in their exercise, our battleships and cruisers, our arms and munitions and supplies of war, could never have been produced or successfully brought into action. It is because our manufacturers and our officers are well trained in these sciences that we are in so many respects superior to our enemy; and this notwithstanding our greater wealth and what we are pleased to call our American pluck.

As the eyes of the nation have recently been turned to Manila, so now they are fixed on Santiago. And when the exploits of our fine new navy shall thrill the world from the Antilles as from the Philippines, which, I ask you, of the learned professions will have done most for the honor and glory of our country?

ADDRESS OF PROFESSOR BUTLER, REPRESENTING THE  
ALUMNI OF THE SCHOOLS OF PHILOSOPHY, LAW,  
POLITICAL SCIENCE, AND PURE SCIENCE.

MR. CHAIRMAN, LADIES AND GENTLEMEN:

It has seemed to me, that in the few moments at my disposal in which to speak to the very large subject which is placed upon the programme, I might perhaps most appropriately deal solely with the general aspect, character, and tendency of the work of the University, so far as it is represented by the School of Law and by the three non-professional graduate schools. For it is as true of a university as it is of a political administration that it must represent and rest upon an instructed public opinion, and that it is to the encouragement and sympathetic approval of the graduates of the College and of the University that the policy of the University must look for aggressive support. It is not generally understood, I am afraid, even among those who follow the developments at this institution with some care, just how important is the work upon which we are engaged and how definite are the plans and ideals and methods that are before us.

Those of you who have had occasion to examine carefully the statement with which the University comes each year before the public, must have had your attention attracted by the opening sentence—"Columbia University includes both a college and a university in the strict sense of the words." It is the policy of Columbia—a policy which so far as I know is not pursued with the same definiteness by any other institution—to erect in this great metropolis a modern American university that shall in every particular rest upon the perfected American college. There have been various ways of attempting the development of universities in America. One of them has been to add a few elective courses to a college and by resolution of the governing board to create a fiat university. There are many of these, far and near. Another method has been to transform a college into a university through the virtual destruction of the college, by so raising and altering the requirements for admission that

the college does not rest upon the public high schools and the academies of the country, but requires some special and peculiar preparation of its own. We at Columbia believe that both these policies are unwise and unjustifiable, and that it is the part of wisdom to insist that the university must in every particular rest upon the college as we know it. In other words, while the scope of the university includes every department of science and literature, it is first of all our purpose and intention that every university-trained specialist shall be a liberally educated man or woman. We have made no concession to the opposite tendency, and will make none. All our progress is in the other direction, and it will not be long before the Schools of Law, Medicine, and Applied Science rest securely upon the college course as a condition of admission. There were graduated upon this platform this morning eighty-four Bachelors of Law, fifty-one or fifty-two of whom had graduated from a college; there were also eighty-four Masters of Arts and twenty-two Doctors of Philosophy, coming from fifty or sixty different institutions, but all college-trained men and women. They were all earnest men and women who had come here to pursue the study of some branch of philosophy, political science, or pure science, and who brought with them the equivalent of our college training. This fact cannot be insisted upon too often or too emphatically before our own alumni, because it is of the highest importance to know just what Columbia's policy is in this respect. We are pursuing here the policy which in the long run will, as we believe, produce the most efficient and highly trained specialists, and will also solve the vexed question as to the relation of the American university to the American college. The work of the college has, in turn, been so broadened and liberalized that the student looking forward to any career whatever can get there both a liberal education and the best possible preparation for his future life-work. The success of this policy is sufficiently attested by the fact that we have at the present time in the university no fewer than thirty-five institutions of learning of college rank that are represented by five or more graduates each. Students come to Columbia from other colleges in large number to get the professional training or the courses of investigation and research that we have to offer, and they carry away from here, I am sure, something of that splendid and inspiring Columbia spirit of which you have heard this afternoon, and which permeates the whole institution.

There are no "schools" or "divisions" of Columbia University in any but an administrative sense, and to the student Columbia is one—with all its manifold parts: one matriculation, one registration (with exceptions that are relics of the past, and must soon be removed), one system of fees and records, and an interchange of privileges between so-called "schools," that make the institution for him what it really is in effect, an absolute unity.

It is a matter of very great pride and satisfaction to one who, like myself, has no professional or official relation to the School of Law to be permitted this afternoon to speak a word concerning the great advance that has been made in that important division of our educational work. We have been able by careful study, by the expenditure and sacrifice of

large sums of money, and by giving the most careful attention to the problems involved, to place the study of law upon a true university basis. The hours of attendance in law have been doubled since most of you were students here. The character of the instruction has been greatly altered for the better, and the demands upon both teachers and students have greatly increased. It is the testimony of the bench and bar and students alike, that we are now performing a great educational service in that branch of the University. It is easier for me to say this to you than it would be for a member of the Law Faculty or for a graduate of the Law School.

The other three schools for which I am to say a word are only three administrative divisions of one department of our work. They deal with investigation and research ; they are training the scholars and specialists and men of skill in the various departments of letters and of science. Splendid success has attended all our efforts in this direction, and we have every reason to be proud of the beginning that we have made in the past decade.

But while we may dwell upon our past with very pardonable and justifiable pride, yet I prefer to look to the future, and to fancy Columbia University fifty years hence, resting upon this magnificent height in the center of the metropolis of the United States, and accomplishing a work of which that which you see about you to-day is only the promise. No matter what may happen elsewhere, when that time comes and when an intelligent and instructed public opinion, under the leadership and guidance of the alumni of the University, shall have come liberally and eagerly to the support of Alma Mater, there will then be in America at least one university of which we may all be proud as students, scholars, and citizens—one true to American educational ideals, which distinguish first the high school, then the college, and then the university. Both the College and the University will be immensely strengthened by doing each its own work without going beyond it, and giving strength to the other without losing its identity. The watch-word of that University may well be—Columbia College and University, one and inseparable, now and forever !

#### ADDRESS OF PRESIDENT LOW, FOR THE UNIVERSITY

Alumni of Columbia : The one word that I am sure I ought to speak this afternoon is to say to Columbia's children, with all the warmth she would use if she were capable of speaking for herself, "Welcome Home!" It is singularly characteristic of the city in which Columbia has been doing her work since 1754, that twice she has been compelled to move from one site to another. For one hundred years she was near the City Hall ; for forty years she was on 49th Street ; and now she has moved to what we fondly hope will be her permanent abiding place. Ordinarily, the phrase "Welcome Home" is addressed to the wanderer ; but to-day it is the one who has wandered who addresses it to her children.

The first Commencement of King's College was held in St. George's

Chapel, then upon Beekman Street. The first Commencement of Columbia College was held in St. Paul's Church, which stands now, as then, upon Broadway on the corner of Fulton Street. In speaking with some of our older Trustees this morning and asking them where they received their diplomas upon graduation, I learn from the Chairman of our Board, Mr. William C. Schermerhorn, that he received his diploma in St. John's Chapel on Varick Street. Dr. Dix received his in the Methodist Church on Greene Street; Dr. Draper his, in Niblo's Theatre. The alumni of about my own age received their diplomas in the Academy of Music, at 14th Street and Irving Place. Afterwards, the College used the Metropolitan Opera House; and finally the Carnegie Music Hall. Under these circumstances, it is easy to understand with what delight the officers and students and alumni of Columbia recognize that at last Columbia is at home.

Having thus welcomed you as members of Columbia's family, I think I may speak to you of a family secret. I want your sympathy. I think you must understand, after hearing from the gentlemen who have preceded me, what a problem is laid upon the President of the University. When the Dean of the College has told me all I ought to know about the College, I am very sure that the College is the most important thing here. When Dr. Curtis comes and talks about the Medical School, then I believe that after all Columbia is centered upon 59th Street. Then Mr. William Allen Smith comes along, and, by a system of mechanical methods, I presume, re-transfers me to these grounds and compels me to understand that the School of Mines and its associated schools are the real strength of the University. And when, in addition to this, Professor Butler has had his say on behalf of the other schools, I think you can understand in what condition of mind I am. I am indeed in the position which I like to be in, not knowing at all which is the best part of Columbia, only knowing that all of it is so good that I want to serve it with all my heart.

I want to say to you once more, as I sit down, that this has been to me a day of delight, to see the sons and daughters of Columbia coming to this spot and dedicating it for its long career of usefulness by their kindly presence. I am very sure that all of us will carry away from here to-day a new inspiration, whether our life-work lies here or elsewhere; and there will be in all of us, I am sure, some new touch of Columbia's spirit, leading us to loftier elevations of thought and to more unselfish service.

## STATISTICS OF ENGINEERING EDUCATION

A PAPER written by Dr. M. E. Wadsworth, President of the Michigan College of Mines, entitled *Some Statistics of Engineering Education*, was presented recently to the American Institute of Mining Engineers. In it Dr. Wadsworth gives, in considerable detail, the number of students enrolled year by year in the several departments of all the technical colleges of this country and in the leading ones of Europe. An inspection of Dr. Wadsworth's paper will show the very surprising fact that the number of students in the technical colleges in this country is at present on the decrease. So struck was I by this statement that I have extended the statistics of the leading colleges so as to include 1897-8, and have made an investigation, in some instances, into the records of past years, in order to check Dr. Wadsworth's figures.

With the exception of certain trifling errors, these statistics, as presented by him, appear to be correct; the only irregularity being a slight inconsistency in the treatment of students in architecture, metallurgy, chemistry, pure science, and other cognate courses. In the case of Columbia he gives all the students enrolled under the Faculty of Applied Science; in the case of the University of Pennsylvania he has included chemistry; while in the case of the Lawrence School of Harvard University he has included, not only the students following architecture, but also those following pure science and other lines. In order to reduce the figures to the same basis of comparison, I have deducted from Columbia's and Harvard's totals all students except those in engineering courses proper.

On page 18 of Dr. Wadsworth's paper, he gives the statistics for eleven years—namely, from 1886-87 to 1896-97, inclusive—of those institutions which at any time in that period have had fifty students or more: that is to say, he groups the largest technical institutions in this country.

Taking the figures from 1888-89, I summarize the students in the engineering departments, as shown in Table I. The figures given for civil engineering show the total attendance in that department in fifteen colleges; for electrical engineering in nineteen; and for mechanical engineering in eighteen. I omit the figures for mining engineering, as they are based on the total of four institutions only, two of which show a sudden and evidently abnormal growth from 1896 to 1897—probably the result of some special or local cause. That this growth is abnormal is borne out by the fact that during the present year the number of students at the Michigan College of Mines, one of the two institutions referred to, has fallen to ninety-four—a decrease of forty-four from last year, bringing the total back to the same number as was enrolled in 1894-95 and 1895-96.

TABLE I  
STUDENTS ENROLLED IN ENGINEERING COURSES,  
1888-89 TO 1896-97

YEAR	'88-'89	'89-'90	'90-'91	'91-'92	'92-'93	'93-'94	'94-'95	'95-'96	'96-'97
Civil Engineering	791	903	1,029	1,129	1,202	1,356	1,350	1,236	1,158
Electrical Engineering . . .	343	536	696	970	1,225	1,621	1,772	1,938	1,615
Mechanical Engineering . . .	923	1,055	1,163	1,291	1,471	1,841	1,882	1,898	1,760
Total . . .	2,057	2,494	2,888	3,390	3,898	4,818	5,004	5,072	4,546

In order to indicate these figures to the eye, I have represented them in a diagram (Plate I) which is self-explanatory, and by which it will be seen that the number of students in civil engineering reached a maximum in 1893-94, from which maximum the total in 1896-97 indicates a decrease of 15 per cent. It is possible that the complete figures for 1897-98 will reveal a slight increase over those for 1896-97.<sup>1</sup> In electrical engineering the summit is shown in

<sup>1</sup> [This article was prepared in the winter of 1897-98, before accurate figures for the year were obtainable. The absence of the author from the country prevents his extending the statistics to include 1897-98.—*Editors.*]



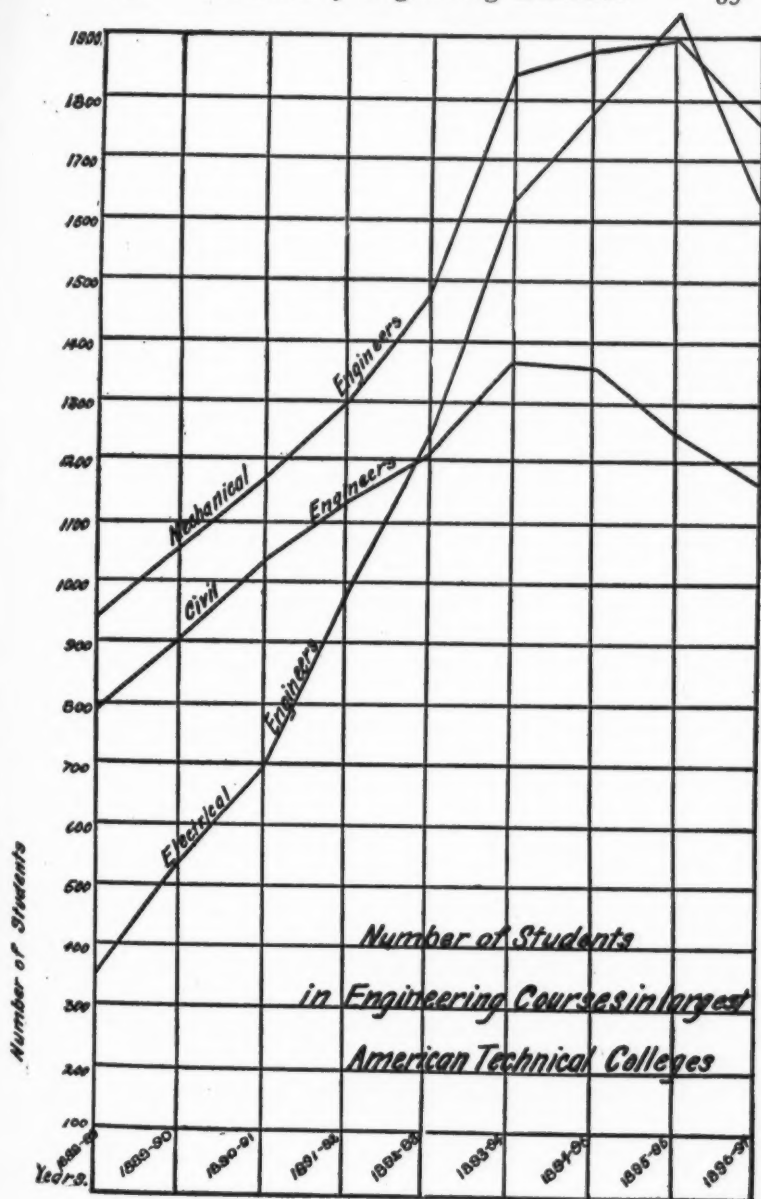


PLATE I.

1895-96, after which the 1896-97 figures fall off by 15 1/2 per cent. Such partial figures as I have obtained for 1897-98 would indicate that the total for the country at large at present shows a still further retrogression from last year. In mechanical engineering the greatest number of students enrolled was in 1895-96; those enrolled in 1896-97 were less by 8 per cent.

In order to show how our own Faculty of Applied Science stands in comparison with similar departments of other colleges with which it may be said to be in competition, I give below the figures, including those for 1897-98, of students enrolled at Columbia and other institutions, and I have also represented these figures graphically (Plate II). From this diagram it will be seen that there are only three out of the nine institutions whose present total of engineering students is greater than at any previous time—namely, the Massachusetts Institute of Technology, Harvard, and Columbia. The first shows but a very small increase for the past two years; Harvard shows a fair increase; Columbia shows a very decided one, and is evidently increasing at a very much faster rate than any other institution.

TABLE II  
TOTAL STUDENTS ENROLLED IN ENGINEERING COURSES  
IN EASTERN INSTITUTIONS

YEAR	'88-'89	'89-'90	'90-'91	'91-'92	'92-'93	'93-'94	'94-'95	'95-'96	'96-'97	'97-'98
Cornell . . . .	409	480	562	639	672	689	617	612	623	641
Mass. Inst. Tech.	338	388	407	441	457	511	556	575	573	578
Lehigh . . . .	307	332	322	427	465	451	421	354	302	302
Univ. of Penna .	200	203	210	259	282	245	292	237	219	191
Stevens . . . .	196	196	213	210	264	264	256	263	254	254
Rensselaer . . .	167	174	189	185	206	188	165	135	137	138
Princeton . . . .	55	65	104	141	175	182	168	116	95	80
Harvard . . . .	2	15	10	18	71	121	140	154	159	177
Columbia . . . .	128	142	156	186	185	216	257	231	250	286
Totals . . . .	1,802	1,995	2,173	2,506	2,777	2,867	2,872	2,697	2,612	2,647

In order to pursue this subject in greater detail, I have taken, as an example, the electrical engineering courses;

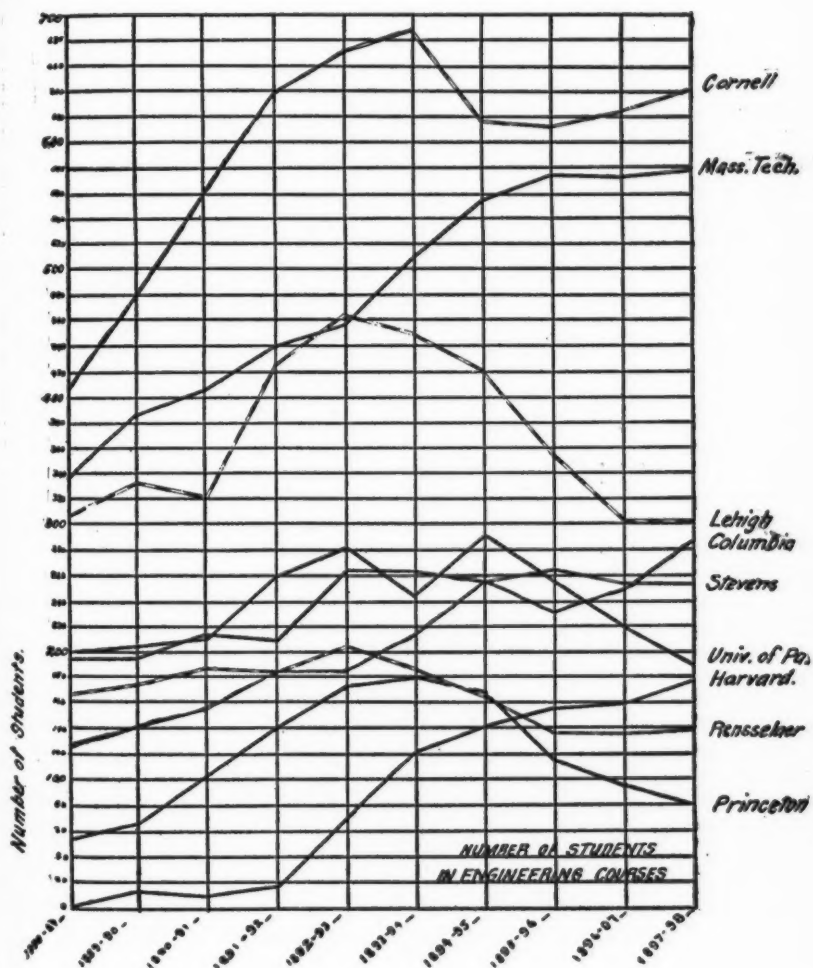


PLATE II.

for if there is any department of engineering which would seem at present to be catching the public eye, it is that devoted to electricity. But when we take up the study of electricity in detail, the results indicated by the previous figures become even more striking. In Table III, I give the number of students, during the past decade, studying electricity in the previously mentioned nine institutions (except Stevens and Rensselaer, where special electrical courses are not given).

TABLE III  
STUDENTS IN ELECTRICITY, 1888-98

YEAR	'88-'89	'89-'90	'90-'91	'91-'92	'92-'93	'93-'94	'94-'95	'95-'96	'96-'97	'97-'98
Cornell . . . . .	125	172	214	250	257	239	211	293	230	197
Mass. Inst. Tech.	94	91	105	108	112	141	137	126	106	90
Lehigh . . . . .	41	75	91	118	145	141	136	103	85	66
Princeton . . . . .		10	37	48	23	22	12	7	10	6
Harvard . . . . .	I	6	6	8	31	56	63	65	44	47
Columbia . . . . .		19	21	26	41	87	113	117	134	141
Univ. of Penna . .	Mech. and Elec. Eng. Courses not separated.									
Totals . . . . .	261	373	474	558	609	686	672	711	609	547

Harvard makes a small increase in 1897-98 over 1896-97, but the total for 1896-97 is 28 per cent. less than that for 1895-96. All the other institutions, except Columbia, show a heavy decrease for 1897-98 and the immediately preceding years; the students enrolled at Cornell being less than in any year since 1889-90. On the other hand, it is exceedingly gratifying to point out that Columbia is the only one of these institutions which shows an increase over the preceding year for every year since the commencement of the course in 1889.

Whether the cause for the general decrease shown above is the hard times or previous rapid development in scientific education, or a combination of these two, is necessarily a matter of speculation.

Unquestionably, the best place to give a technical education is in a large city, where the students are surrounded

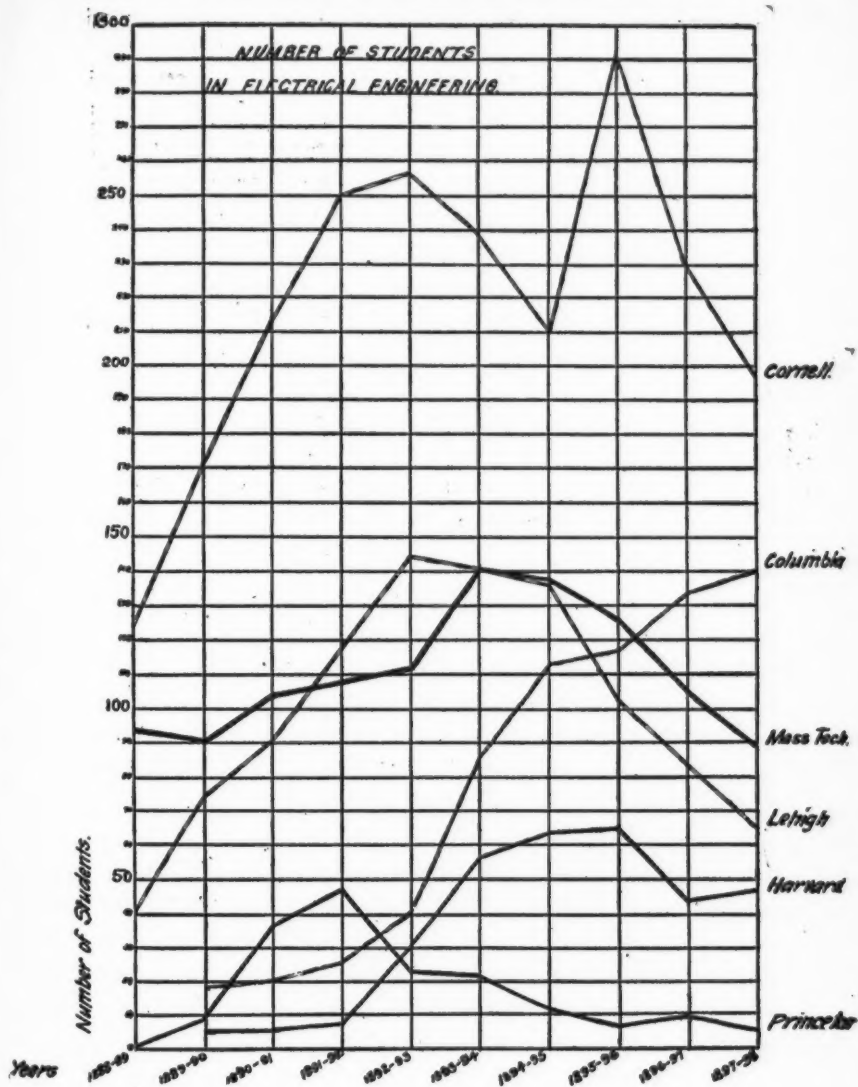


PLATE III.

by the atmosphere of a commercial center and receive, unconsciously, an insight into the way in which the affairs of the world are conducted, in a manner that would be impossible in a country town. If that be true—and I think it is—the larger the city in which a technical institution is situated, the greater the benefit to its students. On our new site we have increased enormously the opportunities for obtaining a high-class engineering education. Taken all in all, there is probably no college in the country that offers such opportunities as does Columbia at present.

WM. BARCLAY PARSONS

#### STEPHEN P. NASH

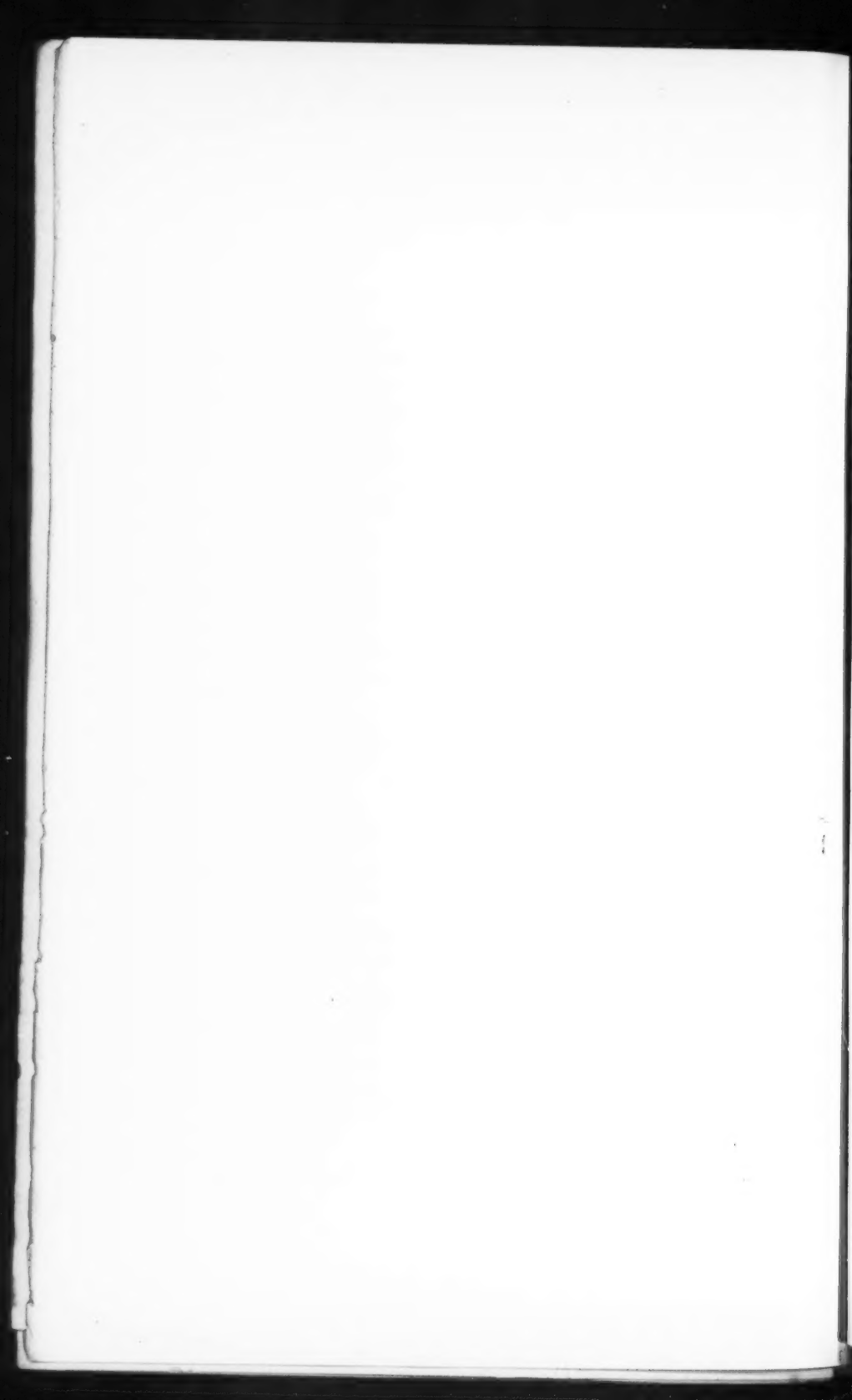
ON Saturday, June 4th, the death of Mr. Stephen P. Nash deprived the University of one of its oldest Trustees. The regard in which Mr. Nash was held by the Trustees and officers of the University was well expressed by Dr. Dix in alluding to him as "a man trusted, honored, and beloved as few have been." Few have the privilege of serving the University for so long a term as was accorded to Mr. Nash during the thirty years of his trusteeship, and few have the ability to render to the University services of such value. Although not a graduate of Columbia, Mr. Nash evinced for it all the affection which the alumnus bears to his Alma Mater; and in all but a technical sense he was a true son of Columbia, even before he received the honorary degree which she conferred upon him.

Mr. Nash was born in Albany, August 26, 1821, and received his education at the Albany Academy and at the French College in Chambly, Lower Canada. He was admitted to the bar at Saratoga in 1843, and began practice in New York in 1845. It was from Chancellor Walworth that Mr. Nash received his certificate of admission, and with such men as Judge Cowen, Nicholas Hill, and Judge



Yours truly  
S. P. Nash





Bockes that he commenced his professional career; and throughout it he preserved the old-fashioned courtesy of manner, and the old-time strictness of professional standards which he derived from his early associations. The description of Mr. Hill given by Mr. Nash in his memorial address applies equally well to himself: "His tastes were refined, and his sensibilities lively and delicate, his nature frank and without guile, his heart warm and true."

If in no other respect, Mr. Nash rendered a great service to the bar of New York by the example which he afforded of rigid adherence to the highest requirements of professional honor; and the earnestness of his desire to preserve the best traditions of the bar found active expression in his efforts to bring about the formation of the Bar Association, and subsequently to effect the reorganization of the Law School upon the highest and broadest standards. Even more strongly was his influence exerted through his personal relations with the younger members of the bar, many of whom will say of him, as he said of Mr. Hill in the address already referred to: "For myself I can never forget how much I am indebted to him for example, guidance, encouragement, nor the unfailing kindness which in boyhood and ever afterwards I always received from him." For over fifty years he was engaged in active practice with eminent success, often involving very large interests; but, nevertheless, he was able to devote a vast amount of time to religious, philanthropic, and educational institutions. Both in Trinity Church and in the Episcopal Church at large he was not only a recognized authority, but was also a most active worker. He drew the act of incorporation of the Cathedral of St. John the Divine, and he was almost invariably consulted on important questions affecting the Diocese and the Church at large.

As a Trustee of the University, to which office he was elected in 1868, his services were no less distinct and important. Combining as he did to a remarkable degree the conservatism of years with the open-mindedness of youth,

his sound judgment was of inestimable value at more than one critical point in the development of the University; and his charming personality and warm sympathy enhanced his influence by attaching his associates to him the more closely. Thoroughly imbued with a spirit of loyalty to the College and deeply convinced of its great inherent possibilities, he was strongly in sympathy with a progressive policy. The Law School especially claimed his interest, and in recognition of his services to the School a professorship of law has been named after him; but he was also fully conversant with the conditions in all parts of the University and keenly appreciative of its expanding needs. Happily he lived to enjoy the satisfaction and pride of seeing the University established upon its new site, and in the accomplished fact he recognized the beginning of a still greater future. Closely as he was associated with Trinity Church and the Cathedral, to no institution was he more deeply attached, to none were his services more lovingly rendered than to the College; and nowhere was he more beloved. It is said by one who knew him intimately that no honor which he ever received afforded him such gratification as the degree of Doctor of Laws conferred upon him by Columbia, and in his last long rest he lies in his doctor's gown and hood.

J. B. P.

#### THE FINE ARTS AND CLASSICAL ARCHÆOLOGY

THE most thoughtful minds of to-day, in turning their attention to the puzzling problems that our modern society, with its crowded cities and complicated organization, has set for humanity to solve, seem each year to be feeling more and more that the solution lies, not in theories of the distribution of wealth and the like, but in the creation of better ideals, in the spreading abroad of truer

notions of that which makes men happy. It will take mankind many centuries yet to learn the truth of Aristotle's saying that "happiness is the soul's activity in accordance with perfect virtue." Perhaps when that is learned, we may assume the millennium to be near at hand. Now one of the chief forces in our society—the chief force, I might rather say—for the spreading abroad of these better ideals is, of course, education, the end and aim of which always has been and always will be that "the soul may get soberness, righteousness, and wisdom." And so it is our institutions of education and learning upon which the burden and responsibility of disseminating among us true ideals must in large measure rest. To those, then, who are specially interested in the successful conduct of any really vigorous institution the question must constantly recur, "How far is my school or college or university fulfilling its function, in giving its students the opportunity of getting knowledge and wisdom? Is it doing its best, and is it using the advantages of its surroundings and equipment to the fullest extent?"

In the course of the last generation those who have charge of instruction among us have come to a full realization of the truth that it is impossible to fashion the education of every one after the same pattern. We now believe that men may attain to good education through forms of mental training which tend to be as varied as their varied capacities, and the consequent enrichment in the opportunities which educational institutions offer students is truly marvelous. As soon, however, as we try to discover amid the long list of subjects that are offered any particular ones which, more than others, may be supposed to serve the ends of education and give to the average man more of the desired "soberness and righteousness and wisdom," the conflict of differing opinion is so fierce as to make all general agreement seem impossible. There are, however, certain subjects which appear to lend themselves more readily than others to the diffusion of culture; and

among these are such as awaken the intellect through the eye, when the stimulus comes with less conscious mental effort. Every teacher knows how easily the attention of even a sluggish mind is often awakened, when a visible object can be made to illustrate the subject under discussion; and those of us who have an abiding faith in the educating power of Greek ideals cannot help hoping that a greater familiarity with the beauties of Greek art—such as is now, as never before, becoming possible to American students—may spread abroad those ideals, and make good whatever loss there may be (and the loss is hardly so great as some suppose) in the passing away of the old classical college course.

Nor is an acquaintance with the work of the great artists of Europe of less importance to the student of European literature and history than a knowledge of Greek art to the student of Greece. Moreover, apart from its value to professed students, such study is in itself highly educating, and quickly shows its effect, even upon those whose work leads them away from the student's life. The traveller whose eyes have once been opened by even an imperfect survey of the history of art, has an immense advantage over one who lacks such knowledge and who is quite unable to perceive the difference between a good and a bad specimen of architecture or painting. And yet it is not too much to say that until quite recently American education has neglected the truth that there exists in men a latent capacity for the appreciation of beauty, the development of which will constantly tend to call forth the better emotions. No one, of course, would, claim that the instinct for beauty is fed solely by study of the arts which appeal to the eye, or that the neglect of these arts in our teaching has resulted in an absolute starvation of this instinct; but on the whole it has been ministered to in small measure. This neglect has arisen in many cases through the difficulty and expense of providing suitable illustration for instruction in art and classical archæology, but there is evidence that the material is being slowly gathered in many places. At

Harvard the courses in fine arts have for many years exercised a most healthful influence on the college, and this coming year special and systematic instruction in classical archaeology is to be offered. Princeton has for some years had its art department, and Cornell and Chicago now afford their students opportunities for special work in archaeology. Even some of the smaller and less well-endowed institutions are beginning to feel the need of encouraging a study of the fine arts, as Professor Rice's admirable little art room at Williams and the art building at Bowdoin serve to show. It would doubtless be possible to mention traces of the same spirit in many other places; and indeed, quite removed from the colleges, we can see it working in such establishments as the museum at Norwich, Conn., and that at Springfield, Mass.

With all this growing interest in art and archaeology one cannot help asking the question, "What is Columbia offering its students in this kind of instruction? Is the University making the most of the advantages which its situation and equipment afford for this class of work?" Let us consider for a moment what these advantages are. First and foremost, there is the splendid Avery collection of books, which, young as it is, is probably one of the best art libraries to be found anywhere. It has, I presume, no rival in this country except in the combined facilities of the Harvard and the Boston libraries. Then there is the Metropolitan Museum, with the best single collection of paintings in this country, with an excellent series of casts from the antique, and possessing, apart from the large Cypriote collection, a growing number of antique originals. Beside all this, New York has become the art-centre of the country; and there are many gentlemen in the community upon whose active sympathy the University could, no doubt, count in any endeavor that might be made to establish instruction in the fine arts. We appear, then, to possess very considerable advantages for the establishment of such instruction; but are we making use of our advan-

tages? I am told that an English gentleman who visited the Avery Library last year was greatly surprised and delighted with its excellence, and asked at once, "Who is your professor of art?" He was much astonished to learn that there was no such person, and evidently thought it strange that the University was not getting the full advantages of its unusual equipment. He doubtless did not know that the School of Architecture, managed as it is with noteworthy appreciation of the generally educating power of the artistic element in its subject, did make great use of the library; but he was right in thinking that the University as a whole was not feeling its effect as much as could be desired. In the matter of classical archæology the Greek Department does what it can, but the necessary work in other directions prevents anything approaching a systematic treatment of the subject; and, although the University professes to give a higher degree for work of this character, it does not offer its students adequate training for such a degree.

May we not, then, hope that in the near future our lack in providing for these important branches of study will be recognized and remedied? Columbia has accomplished so much in the way of healthful growth during the past few years that it may seem almost ungracious to speak of deficiencies which still exist; but the realization of new opportunities is the condition of growth, and only by such realization can we make our own that promise of the Prophet, which may well be the motto of every University, "Blessed are ye that sow beside all waters."

JAMES R. WHEELER



## DEBATING SOCIETIES AT COLUMBIA

EVIDENCES of the nature of the student life of Columbia in the past are at once most difficult to find and most unsatisfactory when obtained. A study of the circulars of courses, of the statutes of the trustees, and of laws and conveyances in which the College was concerned, would give one an idea of the material and intellectual growth of the school. In no books or series of articles, however, can one find direct evidence from which to build anew the student life of former days—especially of the earliest days, when home and city surroundings received so great a part of the students' attention.

Yet college life and associations there must have been; and evidences of this, though fragmentary, may still be found. The history of fraternities from year to year and that of athletic events—histories which go back to the middle of the present century—could be brought to help form an idea of this side of Columbia life. Even before the days of fraternities and of athletics the record of the so-called literary societies offers a field for research from which much may be gained. The continuity of the life of these associations, dating back as they do nearly a century, offers, too, a chance for tracing in student opinion and ideals that growth which is interesting and of value—especially of value now, when undergraduate life under new conditions is so rapidly developing.

The first organization of the nature of a literary society of which we have any record was formed in 1766. *The New York Weekly Gazette or Weekly Post Boy* of June 11, 1766, outlines its plan and purpose as follows:

“Several gentlemen having thought proper to form themselves into a Society, under the denomination of the Literary Society, for the encouragement of learning, and the excitement of emulation and attendance among the Students of the College, have raised a fund sufficient for their purposes;

and in pursuance of their intended plan propose to distribute the following premiums, either Medals or Books, at the next examinations before the Governors and President, and to continue the same twice a year for the future." Here follows a list of the premiums, varying in value from £6 in Moral Philosophy in the Senior year to £2 in Greek translation in the Freshman year. "Until medals can be struck," the report continues, "books will be given, each of which shall have on its cover the seal of the College; and on the inside there will be the following certificate signed by the President. *Ingenuo fidaeque Spei Adolescenti propter insignes in Artibus Progressus, Præmium hoc Literarium dedit Societas Literaria, Die— Anno—*" One of the medals which was given later instead of the books, cast in silver with the seal of the College on the obverse and a Latin inscription on the reverse, "with a cut of Minerva presenting a Medal to a Youth in College Habit," is still preserved in the office of the Trustees.

A short life seems to have been allowed the Literary Society, though the custom of awarding prizes for excellence in examination was still in vogue at Columbia as late as 1890. No sooner was the new college started after the Revolution, however, than there came into being a new society for the encouragement of learning. This time the students devised the plan, and the matters to be encouraged were essay writing, declamation, and speech-making. Dignified by all the forms of a constitution and ritual for initiation, the Philolexian Society began its existence in 1802.

One likes to think that the call for an organization with these aims come in response to the needs of the public life of the time—in this case to the need for ability in speech making and for that knowledge of parliamentary law which a new country and new method of government forced upon every man of influence. Be that as it may, the society started with the laudable purpose of "training men in oratory and public speaking." In 1806, four years later, the Peithologian Society, formed on much the same lines, came into being.

In the next ten years these societies seem to have discussed in their meetings every question on which two sides could be found: the rights of search, of suffrage, and of the Colonies; the relative values of statesmen, of religions, and of systems of governments. And in all this men were gaining training in speaking, if not always in thinking on their feet. In parliamentary procedure, too, there was practice of the most rigorous kind. An elaborate constitution, defining the duties of officers and members in minute detail, and an appendix showing rulings of the chair and appeals by the executive committee—a digest of the common law, as it were—bears witness to the spirit of thoroughness in which the work was done.

With these aims of training men in writing, in declaiming, and in stating carefully formed opinions on subjects of the day, the societies were of influence in reflecting, if not in determining, the intellectual life of the institution. Gradually the societies had come to extend their purposes; and in 1815, through their library, their separate club-rooms, and their freedom from competing societies, they were a factor, one may say the factor, in forming the social life of the College as well.

In this same year, 1815, the *Peithologian Recreations* was published and the *Philolexian Observer* was collected in manuscript. These were the early representatives of the College press of to-day. Each number has a Johnsonese or Addisonian essay on some literary subject: *On Romance*; *On American Pathos*; *The Story of Henry D—*, a tale of filial disobedience with its inevitable consequence and pointed moral; *On Shakspeare's Plays*, a protest against the immorality of the stage and the plays of the great Elizabethan.

These papers were destined to a brief career, and the literary tendencies of the societies seem to have been swallowed up in the renewed interest in public speech-making. Statutes of the Trustees provided for the representation of the societies in making selections for commencement speakers; and the annual public meeting of the joint so-

cieties, at which an oration by some alumnus of the College was delivered, became in the thirties and forties an accepted function. These orations, now collected in the Columbian collection in the Library, form a more interesting series to glance at than to read with care.

It was at this time that the library of these societies, to which reference has been made, is first publicly noted. Here were collected about one thousand volumes of the standard and periodical literature of the time, volumes which the college library of that time did not necessarily provide: the histories of Gibbon, Grote, and Hallam; the bound volumes of *Blackwood's*, the *Anti-Jacobin*, and the *North American*; and most important, because least available elsewhere, the novels of Irving, Fielding, and Scott. Recalling the report of the librarian of 1861, in which he states with pride, as showing the nice care used in selecting books, that "there is not, except the Waverly Novels, which are regarded as illustrations of History strictly speaking, an English novel in the Library," we wonder if the society which provided these books and a place in which to read them did not here exercise its greatest influence. An appropriation of two hundred dollars a year for payment of expenses, in consideration of the transfer of these books to the College, still granted by the Trustees to each of the societies, shows, in a measure, the value which was eventually placed upon the collection.

To trace the means by which the purely social side of College life was given over to clubs which were social in purpose; to show how men gained their ideas of questions of the day from sources other than by listening to public speeches, how the public oration and commencement speech ceased to be, and how the literary tendencies of college fell away from the debating society, is to trace the changes which have remodeled College life and transformed student opinion. Suffice it for the purposes of this sketch, that the rise of fraternities (about 1836), the growth of athletics at a later date, and the more systematic study of literature, history, rhetoric, and political economy are all means by which

these changes have been chiefly brought about. Suffice it, too, to say that the taking away from the societies of these varied interests made them once more what they were originally, societies "to give training in oratory and public speaking," even though oratory had come to mean something other than that typified by the undergraduate commencement oration.

When one realizes how rapidly the change came which took away the many and diverting interests of the debating society, he is ready to see how, for a time at least, these societies must have become so weak that they almost ceased to be. And yet it still remained a fact that a liberal education should prepare some men to speak effectively, and that ability to speak, like ability to write, comes only with practice; and it still remained the part of the undergraduate to find some means, not provided by the courses in College, for training in speech-making. Accordingly, in 1877, we see the formation of the Barnard Literary Association as a protest against the lax ways in which the work in the one remaining society, the feeble Peithologian, was conducted. To meet it the dead and dying societies were revived, and practice in speaking was once more provided for. In debates, not in orations, was sought this training; and further to stimulate interest in the work the inter-society debate was organized. But while other colleges were arranging for intercollegiate debates—the interest in discussion of subjects of the day was almost universal—Columbia was getting interest through its annual spring debate, so-called,—a staid, academic function held each March in the Law School, where awards were made chiefly for individual speeches and where there was little attention paid to debating, as it has at present developed with its team work and quick rebuttal.

Since 1896 the clubs, now two in number, the Philo-lexian Society and the Barnard Literary Association, have begun to provide for debates on the larger scale of intercollegiate work and have thus far made an enviable record. A debate with the Harvard Forum, a Cambridge club, in

1897, was given to the Columbia societies; and a victory, in the face of great odds and of most elaborate methods of preparation adopted by the opposing team, was last spring gained over a team from Chicago University. In each case, however, the victory came more as a result of particular training of the men finally chosen for the team than of the work offered by the societies.

But to win debates is not the end for which the societies exist, much as a reputation in debating may build up the College and offer a field for expressing and developing college feeling. The society rather exists to offer men the chance to find whether they can speak at all, and the opportunity to master the mechanical side of speech-making, without which mastery, and without practice in gaining which, speaking is for nearly every man an utter impossibility. And if, in its purpose to train men in oratory and public speaking, the society has now to give practice in presenting with force plain statements of fact, it still holds, as it always has held, an important place in college life and is still a fit subject for undergraduate effort.

As one traces this development of the all inclusive society into the club which trains men in speaking alone, and as he realizes how many organizations now provide the facilities which a single society used to give, he must feel how much we have lost by this minute division of interests. It was a wholesome, democratic life, when a single society had in it enough to bring together men of every class and taste; and there was in such a life a breadth of opportunity for the student to develop in more directions than one which is hardly possible to-day. It is perhaps impossible that, even with a more intimate life in dormitories, there can ever be a single organization which can offer advantages in more fields than one; but the matter, as yet, is not open for more than speculation. Certainly there would be much to commend an organization which could combine the several small interests that are now divided among so many different societies.

PHILIP E. BRODT

## EDITORIALS

The first number of the *Bulletin* appeared in July, 1890. It bore on its title-page the College seal and the words "issued by authority," but it was published anonymously, like other official

documents, and contained for the most part such announcements, regulations and statistics as now appear in the circulars of the various faculties and in the President's annual report. The second number was issued in February, 1892, with the title of *University Bulletin*, under the editorship of a committee of seven professors, each representing a different faculty. Its aim was "to give a summary of important university and faculty legislation, to record the scientific and literary work of the officers of Columbia College, to furnish information with regard to original investigations that are in progress, to indicate the subjects that occupy the attention of the advanced seminaria, and to give other general information that may be of immediate interest to inquirers, or of permanent value as a matter of record." It was to be issued at intervals of about two months during the college year, and was to be sent free to such alumni of the College as might signify their desire to receive it.

No radical change in the character of the *Bulletin* took place until 1896. It appeared at first twice, and afterwards three times, during the academic year; and was sent free of charge to officers, to a slowly growing list of alumni, and to many libraries and newspapers. Its tone was mainly that of an official document, impersonal and authoritative, as was appropriate in a publication which was supported entirely by an annual grant from the Trustees, and its contents were mainly restricted to the definite statement of matters deemed worthy of permanent record. It did not attempt to deal in any intimate way with the life and thought and progress of the University. Yet these early numbers of the *Bulletin* can scarcely fail to be of great interest to all who have passed through the period which they cover. Few as the pages sometimes were, reserved as was their temper, one can see clearly indicated the various structural changes that made Columbia a



University, and brought the almost isolated faculties and departments to realize their relationship as parts of an organic whole, laboring with kindred aims in a common service. That these various phases of a momentous change should have been so clearly indicated was largely due, it is a pleasure to state, to Professor H. T. Peck, who was the Chairman of the Editorial Committee from its foundation until 1894, and whose literary skill and tact are plainly discernible throughout the numbers which were issued under his care.

Although the *Bulletin* continued until 1896 to be issued by authority of the Trustees, and its expenses to be paid by an annual appropriation, it is easy now to see that its character was slowly but inevitably changing from that of an official document to that of a publication that reflected more fully the current thought and life of the University. In the tenth number the Editorial Committee begs leave "to depart somewhat from its previous custom and to mention briefly the most noteworthy of the facts recorded in the following pages, lest in the mass of interesting details relating to the various departments of the University which this number of the *Bulletin* furnishes, the more important facts should escape the attention of any of the officers, alumni, and friends of the University." In the twelfth number this brief summary had grown into short editorials on matters of current interest, and from that time on this department showed a steady development. At the end of the thirteenth number there appeared for the first time a list of all the recent issues of the serial *Studies* and *Contributions* issued by various departments, and a list and description of the recent publications of the University Press—a practice which was really equivalent to the introduction of advertising pages and which was the beginning of the intimate relations between the *Bulletin* and the University Press. Meanwhile, the tone of the *Bulletin* was slowly changing to one less official, the matter published was becoming more completely representative of the widening interests of the University, and the number of alumni who desired to receive it regularly was growing steadily larger. By 1896 it was evident that the *Bulletin* could be most successful, not as an offi-

cial publication of the Trustees, but as one in which all the officers and alumni of the University could claim an equal share; and by common consent the *Bulletin* passed into the hands of the University Press.

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With the approval of the Trustees of the University, the University Press took charge of the *Bulletin* with the number of December, 1896, appointing its editorial committee and assuming its financial responsibilities. The form of the publication was at once altered for the better, the amount of published matter was enlarged, the circulation was considerably increased, and the Editorial Committee announced its intention, while preserving in the *University Notes* and *Summaries of University Legislation* the official character of the earlier numbers, of devoting more space to matters of general interest to the alumni, and of making the *Bulletin* so far as possible a complete record of the work and progress of the University. These aims have been closely adhered to in the six numbers which have already appeared with the imprint of the University Press; and it is gratifying to notice the extent to which they have been distributed among the alumni and the friends of the University, and the interest which they have awakened. The portraits, the views of new buildings, the articles dealing with the history of the University, the editorials, the statistics, the bibliographies, the signed articles describing new or recently reorganized departments, have all been generally welcomed. It is clear that both officers and alumni recognize the need and the usefulness of a publication which is devoted to our own interests, and in which—modestly but without undue reserve—we may speak the truth with regard to all matters that concern us.

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The new policy of the *Bulletin* resulted, as a matter of course, in a material increase of its expenses, as well as in an increased circulation. To meet the increased expenses the Trus-

tees of the University Press at once authorized the *Bulletin* to insert advertisements; and now, after much deliberation, they have decided upon an even more radical change in its policy. The *Columbia University Bulletin* now becomes the COLUMBIA UNIVERSITY

QUARTERLY, a name more befitting its present character and the regular intervals of three months at which it is to appear; and it is for the first time to be placed on a subscription basis. By means of grants from the Trustees of the University and from the Alumni Association of the College, subscription is secured for each officer of the University and for each member of the Alumni Association of the College. In addition, as was said in the last number of the *Bulletin*, it is to be hoped that a large proportion of those who have hitherto received the *Bulletin* gratuitously will now become subscribers, not only for the purpose of keeping themselves informed as to University affairs, but to aid in maintaining a publication which is of great service to the University. The preceding paragraphs have shown that the *Bulletin* has deserved well of the University commonwealth. It is, indeed, scarcely to be doubted that in the wonderful process of organization and amalgamation through which the University has passed in this decade, the *Bulletin* has been a distinct factor, exerting by its very existence and character an influence favorable to the growth of a strong University community, devoted to the same ideals of education, and working towards those ideals with the same unselfish spirit. And what the *Bulletin* has been, unconsciously and intermittently, we intend that the QUARTERLY shall be of set purpose and with regularity and system.

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The expectation that the Commencement which closed the first year on the new site would be of much greater interest than usual was fully realized. Perfect weather made it possible to

Commencement enjoy every advantage of the grounds and buildings, and to provide comfortably for the large attendance, while the excellent arrangements insured the most complete system and good order. The Gymnasium was crowded to the utmost with an audience of over twenty-five hundred, who were evidently thoroughly appreciative of the ceremonies, which were conducted with all the dignity befitting a university function. The accustomed forms and formulas seemed to gain a new significance from the environment of the University, and the fact that the honors were conferred under our own roof-tree gave them an added value. The ceremonies of the

morning were followed by a luncheon which was attended by about five hundred alumni, by meetings of the Alumni Associations of the College and of the School of Mines, and by reunions of twenty classes, from the class of '61 to the class of '96. At the general meeting of the alumni in the Gymnasium over fifteen hundred persons were present—probably the largest number of Columbia alumni that have ever been gathered together, except upon Dedication Day; and it is safe to say that not one of those who were present failed to share in the proud sense of possession which the University enjoys in her new domain. Both the time and the place supplied the need which Columbia has so long felt for an annual gathering of all her sons; and our alumni may now look forward in the years to come to at least one day and one place which will bring them once more to Alma Mater's throne, to renew the associations and the friendships of college days.

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The President's Annual Report contains a very complete summary of the work of the past academic year and many interesting statistics. The more salient facts upon which it

The President's Report touches have already been treated at greater or less length in the *Bulletin*, but the statistics, which it presents in a form more complete than that in which they have heretofore appeared, afford new evidence that the transition of the University from the old to the new site has been effected without detriment to the educational work or diminution in attendance. Within a surprisingly short period after the opening of the year all of the departments were in operation, so that no appreciable loss of time was suffered either by professors or students. That there should be any marked increase in the number of students during the first year on Morningside Heights was not to be expected, and the fact that the total matriculation for 1897-1898 (not including Barnard College or Teachers College) exceeded that of the preceding year by 230 is therefore gratifying. For the present year we had the right to expect a larger percentage of increase, and the statistics (see the last page of this number) of students already matriculated are eminently satisfactory. It is particularly gratifying to note the marked increase in the number of men

entering the College. This fact, and the fact that so large a proportion of the men taking university courses are college graduates, afford the best possible evidence of a wider and more thorough appreciation of the advantages afforded by the new curriculum of the College and the enlarged facilities of the University faculties.

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A suggestion contained in the report which will doubtless meet with general approval and ready acceptance is that the portion of the grounds north of the retaining wall shall be known

The "Green" and as the "Green," and that the portion south  
the "Quad" of the wall shall be known as the "Quadrangle." In the former name the President seeks to revive the historic usage which designated the enclosure about King's College as the "Green," from the fact that the grounds were covered with beautifully shaded turf. For the same reason the name is peculiarly appropriate to the grounds surrounding the new Gymnasium. In the descriptions of King's College and of the earlier days of Columbia frequent allusions are made to the "Green," which was evidently not only a picturesque feature of the College but the center of student life. Its trees were historic, for they were planted by Chief Justice Jay, Chancellor Livingston, Recorder Harrison, and Judge Benson; and, as a graduate of '39 describes it, "The place had an air of conventual quiet and seclusion, and was delightful in summer, when the shadows of the broad leaves rested on the light brown walls and the flagstones of the walk." The "Green" was the spot to which the alumni of past generations most often returned to revive the memory of their college days, and which they regarded with most affection, and the perpetuation of the name will happily serve as a connecting link between the past and the present. The name "Quadrangle" likewise has the sanction of college usage, though not especially identified with Columbia, and, as applied to the portion of the grounds south of the retaining wall, is appropriate and expressive. As a substitute for the ungainly phrases which we have been compelled to use in describing this portion of the grounds, it will also have the great advantage of convenience, especially when abbreviated into "Quad," and for this reason, if for no other, it should meet with popular acceptance.

A considerable portion of the President's report is devoted to a statement of the cost of the new site and buildings, and of the financial responsibilities so entailed upon the University. No

#### New Buildings

one can read the President's statement without being impressed with the care and forethought which have been devoted to the work, or without being convinced that every dollar expended upon it has been wisely and cautiously invested. Recognizing that our existing financial obligation is so great as to forbid any further expansion of educational work at this time, the President insists that the present educational efficiency can and must be maintained, and he expresses the hope, which past experience seems fully to justify, that during the next five years the University will so profit by the liberality of its friends and by the increase in the number of its students that its pecuniary obligations will cease to be an obstacle to its development. In presenting the need for assistance in defraying the existing liabilities, the President also urges the need of additional buildings. He makes a special appeal for a chapel, a building for the College, a dining hall, an academic theatre, and a building that shall meet the requirements of the social life of the students. That there is an actual and a most urgent need of these buildings is only too well known to all who are in any degree familiar with the expanding life of the University. In a University which owes its origin so largely to the munificence of the Church, the Church should surely be represented by an edifice worthy of its teachings and influence. The urgent necessity for a College Hall is daily rendered more apparent by the increasing number of undergraduates and the exactions of the wider college curriculum. The efforts of the alumni to provide a dining hall should derive new incitement from the experience of Commencement Day; and there is a demonstrated need of a suitable place for alumni dinners, as well as for the less sumptuous but equally essential daily luncheons of professors and students. Commencement itself afforded the best evidence of the need for an Academic Theatre, for the Gymnasium, with a seating capacity of twenty-five hundred, was completely overcrowded. No less desirable is a place which the students shall feel is their own, for their debates, their concerts, their rehearsals, and their social life. The University of Pennsylvania is fortunate in possessing a clubhouse of this description, and the acquisition of such a build-

ing by Columbia would be of inestimable advantage. So much has already been accomplished, and within so short a time, that the obtaining of these additional buildings within a not remote future seems entirely within the possibilities, and the University has the right to look to her alumni and friends to make known her needs and to present her claims.

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The part of the report, however, which will afford the strongest and most general satisfaction is the President's recommendation that dormitories be erected upon the new site. It is perfectly true, as the President states, that the demand for them is almost universal among both young and old. "Some want them," he says, "for the sake of of what they call college life; others for the sake of securing that effect in education that is born of the community of scholars." For every reason, it may be added, they are wanted. As the late Mr. Nash expressed it, dormitories are an essential and inevitable feature of the University under its new conditions; and, as his feeling is shared by many, if not all, of the Trustees, there can be no doubt that the President's recommendation will be accepted with practical unanimity. The mooted question of policy as to whether we shall or shall not have dormitories may, therefore, be considered as decided in the affirmative, and it only remains to be determined where they shall be placed and how they shall be secured.

The President discusses the question as to the character and situation of the buildings from two points of view: first, with reference to "cheapness, combined with convenience of access to the College;" and, second, with reference to adaptation "for the sake of their influence upon college life." If cheapness is made the first consideration, he argues that the need can best be met by the erection of a large building in the vicinity of the University, presumably of the cheapest possible character; but he admits that, if dormitories are to be considered for the sake of their influence upon college life, they must be placed upon the Green and must make that the center of the community life of the students. In the latter opinion he will undoubtedly have the hearty concurrence of students and graduates; for, while the securing of a place to live at a moderate cost is the great desideratum



of our students, it is not so essential that it should be at the lowest imaginable cost as that it should suit their convenience and satisfy their ideals of college life. Sentiment always has been and always will be a potent factor in every English and American university, and no college dormitory which lacks the sentiment of the place will satisfy the wants of the student. The environment and the atmosphere of the University are essential, at the outset, to the working out of a successful dormitory system at Columbia; and, as the President points out, the Green is ideally adapted for this purpose. No great effort of the imagination is necessary to picture the Green surrounded on three sides by dormitories placed near each of the avenues and extending along 120th Street, thus forming a quadrangle opening upon the Green. The Green would still be some two acres in extent and might perfectly preserve its character, while gaining the seclusion which the surrounding buildings would insure. "It is believed by the architect," remarks the President, "that four such buildings [as dormitories] can be erected upon the Columbia Green without disadvantage to any of the architectural effects which have been produced. Such buildings, in the opinion of the architect, should be placed about sixteen feet back from the high fence. They can be designed especially for use as dormitories without embarrassment from their surroundings." Obviously, the isolation of the Green from the Quadrangle will render it possible to adopt, in designing dormitories to be placed upon the Green, a more domestic and less formal style of architecture, without in any way interfering with the harmony of the Library and the group of buildings surrounding it. The advantage so gained can scarcely be over-estimated, since it renders possible a considerable saving in the cost of construction as well as a more satisfactory result; and the size and conformation of the Green render possible an architectural treatment which shall be at once simple and dignified, appropriate for the home of a body of University men. Considered in its practical aspects, the proposition to place the dormitories upon the Green meets with no serious difficulty. Assuming that not more than four buildings are erected, and this should certainly be the limit, ample space will remain not only for light and ventilation, but to secure an effect of spaciousness, which can be greatly enhanced by the cultivation of grass and the planting of trees and shrubbery. The proximity of the

buildings to the power house will reduce the expense of heating and administration, while their situation in relation to the other buildings will secure the most convenient access.

The possible objection that no portion of the present site can be spared for any but educational purposes will not bear the test of analysis. In the buildings already erected we now have a seating capacity of 3,600, and laboratory accommodations for two or three times the present number of students. When the lecture halls surrounding the Quadrangle are completed, comprising the four buildings corresponding to Havemeyer, Schermerhorn, Fayerweather, and Engineering Halls, we shall have a capacity for at least 5,000 students, as may be easily demonstrated. Even the most sanguine believer in Columbia's future growth will hardly assert that she is likely to surpass this limit within any period of time that we need consider, especially if it is remembered that this estimate does not include medical students, for whom separate provision has been made. Should this limit be exceeded, however, there still remain on the plans adopted by the Trustees sites for four buildings, which will constitute an inner quadrangle and will provide for at least another thousand students.

Finally, any hypothesis that the educational requirements of the University will in the remote future exceed the space afforded by the Quadrangle is offset by the pressing and immediate need for dormitories and the fact that the Green can remain unoccupied and unproductive only at a large and continuous expense. The Green comprises fully one-fourth of the entire site, and its cost may, therefore, be fixed at \$500,000. It is necessary only to compute interest on this amount at four per cent. for fifty years to show that, if the land remains unoccupied for so long a period, it will have cost the University a million and a half dollars. At this price it may well be questioned whether the University can afford to allow the land to lie idle. It would seem only good business policy to make some use of the property, which, while preserving its attractive features, will render it productive, directly or indirectly, either by way of rental or as a means of increasing the number of students. It is an admitted fact that the absence of dormitories tends to repel from Columbia many students from distant localities as well as some living in the city, and that without such students the University cannot

attain its legitimate or normal growth. To supply this immediate want, rather than to await the evolution of some unknown future need, is clearly a first duty; and if Columbia has the good fortune which has attended other universities as the recipients of dormitories, the Green and its resident students will soon become a new and powerful element of strength and vigor in the resources and life of the University.

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The Trustees, in pursuance of the purpose which they declared by their resolution of May 2, 1898, to perpetuate the names of donors to the funds of the University, have recently published an interesting pamphlet on the "Gifts and Endowments" of the University, with the names of benefactors. The list begins with an Act passed by the Legislature of the Province of New York in 1751, vesting in trustees the sum of £3443 18 s. for erecting a college within the Colony, and is continued down to the present time. The sub-committee which prepared the pamphlet has had recourse, not only to the official records of the University, but to various sources of information, and the list may, therefore, be assumed to be very nearly, if not quite, complete as to all important benefactions. It presents a noble record of loyal support on the part of the alumni and of liberal generosity on the part of friends of education. It is also the purpose of the Trustees to make further and more public recognition of these gifts in such form as appears most suitable. In commemoration of the bequest of Daniel B. Fayerweather, from which the University has received upwards of \$300,000, the building heretofore known as the Physics Building has been designated Fayerweather Hall. Bronze tablets bearing the names Fayerweather Hall, Schermerhorn Hall, and Havemeyer Hall will be placed in the respective buildings. The names of benefactors who have contributed largely to the Library will be placed upon tablets in the corridor surrounding the Reading Room; and the departmental libraries, laboratories, and collections, which have come to the University as gifts, will be recognized in like manner. A list of special endowment funds will be published annually in the Catalogue. It was also determined by the Trustees that in any plan or design which may finally be adopted for the Memorial Hall, provision shall be

made for tablets bearing the names of all who have heretofore contributed or may hereafter contribute to the purchase of the new site or the erection of buildings. Hereafter a record of gifts and endowments will be kept in the President's office, and the heads of departments will be requested to report all gifts, however small, to the President, in order that they may be properly entered and that the list may be published as an appendix to the President's Annual Report.

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A report of the Committee on the Alumni Memorial Hall was issued for distribution at Commencement. After explaining the system of organization which they have adopted in the College and Schools, the committee state that they have also "prepared and caused to be distributed a general circular, explaining the use and character of the proposed Memorial Hall, accompanied by views of the building and a special form of circular addressed particularly to graduates of the College and the respective Schools." These communications were mailed to about ten thousand alumni. As the result, a very general interest has been aroused. The report of the Treasurer, which is appended, shows that \$59,178.25 has thus far been subscribed, and that of this amount \$31,073.25 has been received by him, \$6,120.00 additional being reported as held by the Treasurer of the School of Mines Committee. Several classes which are engaged in an effort to make up sums of \$5,000 or \$10,000 have not yet reported, and a considerable increase is looked for from these and other sources, from which assurances have been received. Pending the completion of the subscriptions, the Committee has caused the funds already received to be invested in interest bearing securities.

The report continues: "In their general circular the Committee pointed out the need of a Memorial Hall, which would serve also as a dining-hall and as a centre of the social life of the University, and furnish a suitable place for meetings of the alumni. The urgency of this need has been emphasized during the first year of the University upon its new site. Closer relations have been established among students and instructors, and a stronger and broader University spirit has been developed.

The temporary accommodations afforded by West Hall have been used to the utmost, but the need for a larger and more suitable dining-hall becomes daily more apparent. This demand must inevitably become greater as the number of students, already very large, who are living in the vicinity of the University, continues to increase, and if, as we confidently hope, provision is made for dormitories in the near future. With the beginning already made, the Committee feel that the success of the undertaking is practically assured, and they renew their appeal to every graduate of the University, to every man who holds a degree from Columbia, to contribute to the enterprise in proportion to his means, so that every alumnus may feel that he has a vested interest in the building which is to stand as the monument of the loyalty which the sons of Columbia bear to their Alma Mater."

The following is the Treasurer's statement of subscriptions:

College . . . . .		\$49,620.00
College of Physicians and Surgeons . . . .		2,113.00
Law School . . . . .		1,225.25
School of Mines . . . . .		100.00
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		\$53,058.25
Additional subscriptions from School of Mines, reported as held by W. B. Kun- hardt, Treasurer, School of Mines Committee . . . . .		6,120.00
		<hr/>
		\$59,178.25
Paid to Treasurer on account of subscriptions	\$28,573.00	
Subscription in 25 shares Illinois Central Leased Line stock at par . . . . .	2,500.00	31,073.25
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Subscriptions unpaid . . . . .		\$28,105.00
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## UNIVERSITY NOTES

### THE LIBRARY

The number of volumes added to the Library during the last academic year was 16,377, of which 5,636 were received by gift. There have been added to the Library during the first four months of the present academic year (ending October 31) 4,592 volumes.

Mr. Joel N. Eno, who has been employed in the shelf depart-

ment and for evening service in the reading room for sometime, has resigned because of ill health. His place has been filled by Albert M. Fowler, a graduate of Cornell and for the past year a graduate student at Yale.

The *Bulletins* of the New York Public Library for August and September contain a list of periodicals relating to general science in that Library and in the Columbia University Library.

There have been thus far received from the special fund for history, given last winter by President Low, 2,780 volumes. Orders are outstanding for about 750 volumes more.

The last additions to the series of departmental libraries in Columbia are those of the departments of Civil Engineering, Mining Engineering, and Physiology.

#### THE COLLEGE

The following have been elected to membership in Phi Beta Kappa: From '98, C. H. Edwards, L. D. Einstein, F. P. Koppel, J. F. B. Mitchell, Jr., R. K. Morse, A. A. Tenney, S. C. Worthen, Franklin Zeiger; from '99, H. H. Bowman, W. A. Bradley, J. S. Harrison, C. H. Tuttle.

#### FACULTY OF APPLIED SCIENCES

*School of Architecture.*—The School of Architecture has to report a rather larger enrollment of new students this year than last. The proportion of special students to the rest remains about the same, but the number of graduates of colleges and scientific schools among the regular students shows a decided increase. There have been no changes in the teaching force; and the only modification to be noted in the administration of the curriculum is the change by which the whole course on specifications and building materials is now to be given in the third year, with four hours a week instead of two. It will take two years, however, to complete the adjustment of the lectures to this new arrangement.

These exercises have hitherto constituted the only instruction which the School was in a position to give in those practical details of the profession. Such matters belong to office practice, and it has, therefore, been the custom to urge students to spend one or two months of the summer vacation in an architect's office, in order to obtain some mastery of the routine and tech-

nique of office work. As an encouragement to do this, office-service was accepted in lieu of the required sketches accompanying the summer "memoir," and a considerable number of students always availed themselves of the privilege. This year the experiment was tried of opening a summer class in office-practice in the rooms of the School, in order to teach by specific instruction in a few weeks what it might take several months to pick up in an office. Under the direction of Mr. W. M. Aiken, late Supervising Architect of the Treasury, the experiment was carried out to a very successful issue, with eight students in attendance for three weeks, some of whom remained three weeks longer. They were required to prepare working drawings and specifications of a cottage from small memorandum sketches, following the work through all the stages up to the inviting of bids upon it. The results were very satisfactory.

The experiment was also tried, for the first time, of assigning to the summer, as a part of the "memoir" or vacation work, the measured drawings heretofore executed during the first four weeks of the term by students of the second and third classes. This year students of these classes were required to measure and draw in plan, elevation, section, and perspective some building in the Gothic style approved by the Professor of Architecture. The work sent in, although executed without the supervision of any instructor, is for the most part very creditable and interesting, and quite justifies the experiment.

There have been added to the collection of casts in the School two models of the fine heads that have this summer been cut upon the keystones of the arches to the Gymnasium driveway. They were the gift of the sculptor, Mr. Buhler.

The Columbia Fellowship in Architecture was awarded for the fifth time last May. The successful competitor was Mr. W. C. Ayres, of the class of 1893, and honorable mentions were also awarded to Messrs. Aldrich, '93, Tachau, '96, and Parsons, '97. The subject was "A Building for an Architectural Exhibition in a World's Fair," and there were twelve competitors, including three graduates studying in the École des Beaux-Arts at Paris.

A. D. F. H.

*Department of Civil Engineering.*—The general character of the course in Civil Engineering has been improved this year by the introduction of a substantial amount of electrical engi-



neering work in the third year. By this addition the course as a whole acquires a very desirable proportion of electrical work. The increased facilities afforded to all the departments of engineering have, however, made it possible only at this time to effect the desired improvement. This, together with the additional laboratory facilities which are now available for the department, gives the complete balance in all professional directions which is necessary for a broad and advanced course of Civil Engineering study.

The adjunct professorship was filled on the first of July last by the appointment of Mr. Earl B. Lovell, C.E., who previously had been instructor in Civil Engineering at Cornell University and, prior to that work, had been engaged a number of years on the Michigan Central Railroad in various capacities—on location, construction, and maintenance of way. Professor Lovell has immediate charge of the Summer School of Surveying, which has been located for a number of years near Morris, Litchfield County, Conn. During the past three years the tutorship of Civil Engineering has been filled by Mr. A. Black, C.E., of the class of '94, School of Mines; and Mr. Charles Derleth, Jr., B.S., C.E., Class of '96, School of Mines, has been assistant in Civil Engineering since his graduation.

The departmental work has been interrupted in some of its laboratories in consequence of the movement from the old site to the new. The laboratory work in cements and mortars, however, has suffered no break, but was, indeed, somewhat extended in the course given last year. It will be still further extended during the current year, facilities having been installed for accelerated and other special tests. During the year just closed, investigations connected with thesis and other work were conducted for a number of special cements and their admixtures with sand, and they will be continued during the coming year.

Laboratory work for the testing of materials was entirely suspended last year, in consequence of the impracticability of re-installing the testing machines at the new site in time to make them available for the students' testing. The laboratory facilities will be applied during the coming year to the testing of various grades of materials used in engineering work by the students taking the course in the resistance and elasticity of materials given in this department. These operations will be con-

siderably extended and advanced, corresponding in a measure to the increased facilities afforded in the new laboratory.

The hydraulic laboratory which was installed in this department at the old site of the University has been much elaborated and developed as a part of the Henry R. Worthington Hydraulic Laboratory. At the present time full plans have been completed for a wide range of work. The pumping machinery and other appliances in the Department of Mechanical Engineering will be available for supplying large volumes of water required for the flow over weirs, in open channels, and through lines of regular service pipes, up to probably 12" in diameter. These laboratory facilities will enable the students to take a complete set of practical exercises in all the usual measurements of water found in the hydraulic engineer's practice, and with dimensions that will correspond at least approximately to those found in practice. Full provision is made for the determination of the various phenomena of flow in open channels. The department is already well supplied with such appliances as hook gauges, current meters, and measuring tanks for meter-testing and other similar operations. When the present facilities are supplemented by those now in process of design and manufacture, the operations of the hydraulic laboratory of the department will be productive of results of the highest value.

W. H. B.

*Department of Metallurgy.*—Professor Howe is giving a new undergraduate course on iron and steel for the civil, electrical, and mining engineers.

During the summer many new and desirable specimens were collected. The wisdom shown in arranging the material of the collection so that it can be used in lecture illustration has proved of great aid in teaching.

Students have applied for several of the new courses in post-graduate work; and the department is being especially equipped for the courses on the microscopic study of iron, steel, and other metals, and for the heat treatment of iron, steel, and other metals.

The efficiency of the departmental library has been greatly increased by Dr. Egleston's generous gift of his personal library of metallurgical books and pamphlets. This very valuable acquisition comprises more than eight hundred volumes of standard works, including the following periodicals, almost all of which

are in complete sets: *Journal of the Iron and Steel Institute*, *Annales des Mines*, *Revue Universelle des Mines*, *School of Mines Quarterly*, *Engineering and Mining Journal*, *Stahl und Eisen*, *Berg- und Huttenmannische Zeitung*, *Wagner's Jahresbericht des Chem. Technologie*, *Transactions of the American Society of Mechanical Engineers*.

The equipment of the furnace room with apparatus for illustrative and research work, which was made possible through the kindness of a friend, is now being carried on. A large furnace for uniform heat is being installed and is available for roasting ores or for high temperature work on metals. A large crucible furnace, which will hold a crucible of eighty pounds' capacity, has been contracted for. There is a large range of research work which could be profitably carried out in this room, and as the courses develop much new material will be required. It is to be hoped that some one will be sufficiently interested in the development of science to help us to equip in a satisfactory manner this important branch of the department.

J. S.

#### FACULTY OF MEDICINE

##### (COLLEGE OF PHYSICIANS AND SURGEONS)

Colin Campbell Stewart, Ph.D., has been appointed Tutor in Physiology, vice Reid Hunt, Ph.D., resigned.

Dr. Clarence A. McWilliams has been appointed Assistant in Normal Histology.

The Faculty has recommended to the Trustees that an O'Dwyer Scholarship be founded in the College of Physicians and Surgeons, in memory of Dr. Joseph O'Dwyer, who died last May, as a recognition of his distinguished services to medicine, and that the scholarship be conferred on Dr. O'Dwyer's eldest son, now a student in the College of Physicians and Surgeons, during the term of his medical education.

Professor Lee attended the triennial Physiological Congress held at Cambridge, England, in August.

In the demonstration room of the Department of Physiology a new electric motor and shafting are being put in, which will greatly facilitate demonstrations by the "graphic method" and those involving "artificial respiration."

## FACULTY OF PHILOSOPHY

*Department of Philosophy and Education.*—This department, which together with the department of Psychology makes up the Division of Philosophy, Psychology, and Education, is at present organized with two professors and two assistants, and has the coöperation, in addition, of ten professors of Teachers College Faculty. During the academic year 1897-8 nine courses were offered in Philosophy and three in Education, and all were well attended. The scheme of instruction begins with the required course in Psychology (Philosophy A), intended for members of the Junior Class in Columbia College and students of equivalent standing. Following this preliminary course are four courses that rank together as introductory to their respective fields, namely, Introduction to Philosophy (Philosophy 1), given by Professor Butler; Introductory course in Ethics (Philosophy 2), given by Professor Hyslop; Introductory course in *Æsthetics* (Philosophy 8), given by Dr. Jones; and a course in Applied Logic and Scientific Method (Philosophy 9), given by Professor Hyslop. Students who have successfully completed one or more of these introductory courses are offered a wide choice of courses for advanced study and research in the several fields to which the introductory courses naturally lead.

At the invitation of the Brooklyn Institute of Arts and Sciences, Columbia University has entered into an arrangement by which certain courses in Education are given at the Institute for the benefit of students and teachers in Brooklyn, who find themselves unable to make the long journey to the University. These courses are Education 1 (History of Education), Professor Russell; Education 2 (Principles of Education), Professor Butler; Education 3 (Applications of Psychology in Teaching), Professor McMurry; Education 6 (School Supervision and Management), Dr. Gilbert. These courses are given at afternoon hours and on Saturday morning, in part by the same instructors who give the same courses at Columbia, and in part by assistants designated by them. The attendance on these courses in Brooklyn has increased rapidly, and now averages more than fifty for each of the four courses.

A Journal Club, in which opportunity is given for the study and discussion of contemporary philosophical literature, is conducted by Dr. Marvin. The Seminars are presided over respec-

tively by Professor Butler and Professor Hyslop. Professor Butler's Seminar has dealt, for two years past, with selected topics in the history of Philosophy, and will continue to work in that field for some time to come. Professor Hyslop's Seminar is concerned with theoretical problems in the field of Ethics.

The Series of *Contributions to Philosophy, Psychology, and Education*, started in 1894, has now reached the third volume, and contains nine monographs of acknowledged excellence that have been favorably commented upon by the philosophical journals both in Europe and in the United States. The department has also been successful in sending out teachers of philosophy, and a number of men trained at Columbia now hold positions of influence and responsibility in other colleges and universities.

The work in education will hereafter be confined to one course on the Principles of Education (Education 2), given by Professor Butler, and to his Seminar in Education, which is dealing with problems of educational administration. All other courses in education—historical, theoretical and practical—are given by members of Teachers College Faculty. These courses are now twenty-seven in number and, taken together, offer an opportunity for the study of education that is quite unrivaled.

In the field of publication the officers and students of the department have been most active. In addition to editing the Series of *Contributions*, mentioned above, Professor Butler is the editor of the *Educational Review*, founded in 1891, and of the *Great Educators' Series*, published by Charles Scribner's Sons, in twelve volumes, which together give a complete survey of the history of education. During 1898 he has prepared for the press a volume entitled *The Meaning of Education*, which is published by The Macmillan Company. He has in preparation a work on the History of Psychology and one on the Principles of Education.

Professor Hyslop, who is a frequent contributor to the philosophical journals, has recently published a volume on Logic and one on Ethics, and has in preparation a work on Epistemology and one on Democracy.

Dr. Norman Wilde, for four years senior assistant in the department, resigned in June last to accept the instructorship in Philosophy in the University of Minnesota. He has been succeeded by Dr. Walter Taylor Marvin, a graduate of Columbia

College in 1894, who has recently taken the degree of Doctor of Philosophy at the University of Bonn, writing his dissertation on *Die Gültigkeit unserer Erkenntniss der objectiven Welt*.

At the same time the junior assistant, Dr. John Angus MacVannel, resigned to accept the instructorship in Psychology and Education at Pratt Institute, Brooklyn. His successor is Dr. Adam Leroy Jones, a graduate of Williams College in 1895, who took the degree of Doctor of Philosophy at Columbia in June last, his dissertation being entitled *Early American Philosophers*.

The enrollment upon the courses offered by the department has increased very rapidly during the last few years, and through these courses a large number of graduate students have been attracted to the University. The total enrollment upon the courses offered in 1898-99 amounts up to the present time to more than 500.

N. M. B.

*Department of Greek.*—The adoption of the New Curriculum for the College made necessary a reorganization of the work of the Greek Department in the undergraduate courses. It was expected that the number of students electing Greek would decrease considerably, but it was hoped that the quality of the classes as a whole, especially in the lower years, would show a decided improvement. Thus far both the expectation and the hope have been realized. During 1897-8, out of a Freshman Class of 95, 36 elected Greek; this year the figures are 37 out of 134. In 1897-8 42 Sophomores elected Greek, this year only 25.

In the quality of the work done there is a very notable improvement. The Freshmen meet the instructors three hours weekly; and one hour in each fortnight is devoted to Greek composition, for which careful preparation is demanded, while the other five hours are given to reading of authors (this year Lysias and the *Odyssey*). A fourth hour is offered to those who wish to take it, which this year is occupied in elementary lectures on Greek life and art, given by Dr. Rogers. Ten men avail themselves of this opportunity, and the result is already very gratifying. The experiment of the fourth hour was tried last year for the first time with the Sophomores, the hour being

used for exercises in Greek composition, and was so successful that it is continued with the present Sophomore class, and is expected to remain a permanent feature of our instruction. For many reasons it would be an advantage to have all the members of the younger classes, especially the Freshmen, meet the instructor oftener than three times weekly, as the nominal total of 90 hours yearly is not a very large allowance for even the cursory reading of Greek authors; but it seemed impossible to provide for more than the three hours under the curriculum. The drawback is largely offset by the plan (which has abundantly justified itself) of assigning outside reading for which the classes are held responsible at examinations.

In the courses open to Juniors and Seniors the numbers are of course smaller, but show a considerable increase over those in the corresponding classes last year. The illustrated courses on Greek Life (Dr. Young), and on Pausanias and the Monuments of Attica (Dr. Young and Professor Wheeler) are attended by eight and seven students, respectively. The total number of graduate students at work in the department is twenty, ten men and ten women.

A voluntary class of seven members is reading the *Frogs* of Aristophanes with Professor Perry.

Mr. F. H. Brooks, '97, appointed Drisler Classical Fellow for 1898-9, has unfortunately been obliged by ill health to resign the fellowship. The University Council has appointed in his place Mr. C. F. Randolph, a graduate student at Columbia for the past two years. Mr. Randolph's dissertation on Roman Civilization in Africa is well under way, and he is expected to take his doctor's degree at the end of the current year.

E. D. P.

#### FACULTY OF POLITICAL SCIENCE

*Department of History.*—The late war seems to have had its effect on educational matters, and several resulting tendencies have been particularly marked at Columbia University. Thus, in the School of Political Science the attendance of students in the course on the general principles of international law has been very large and much interest is being manifested in the subject. Ordinarily this course, as well as a number of others treating of kindred subjects, is given by Professor Moore, who is at present



in the service of the United States government. In his absence the course is being conducted by Mr. Edmond Kelly, who has lectured before the school on numerous occasions. Professor Moore's course on diplomatic history is now being given by Dr. Frederic Bancroft, formerly librarian of the State Department, and a former lecturer in this Faculty.

The Faculty of Political Science has commenced the term with every indication of a most prosperous year. For the first time in its history women are admitted to its courses in history and economics, but only women who are graduates and who are competent to carry on the work of the courses. No women are admitted as special students or to the courses given to the undergraduates, the idea being to put the women graduate students on the same footing as the men, giving them the same opportunities.

The number of publications from the members of this faculty is constantly increasing, and several important works have recently been published or are in preparation. The Macmillan Company will soon publish Professor John B. Clark's two-volume work on the distribution of wealth and the new edition of Professor Seligman's *Shifting and Incidence of Taxation*. Several new volumes in the series of *Studies in History, Economics, and Public Law* are now completed, including volumes eight and nine. These studies comprise the most successful of the dissertations which are submitted in partial fulfilment of the requirements for the doctor's degree. Professor Robinson has just published a volume entitled *Petrarch's Letters*, and Professor Munroe Smith's *Study of Bismarck* has been issued from the University Press.

As Wednesday, October 19, was appointed Lafayette Day, President Low arranged for an address on "The Life and Services to this Country of Lafayette," by Professor J. H. Robinson.

The department of history has enrolled about four hundred students from Columbia and Barnard. It offers a total of thirty-three courses. The new circular which explains fully its resources and gives a detailed account of its work can be had on application to the Secretary of the University. Professor Dunning is absent on leave. He is spending the winter in Rome, engaged in certain researches connected with the history of political theories and ancient institutions.

W. M. S.

*Department of Economics and Social Science.*—The courses in this department have been so systematized as to meet the needs of both undergraduate and graduate students, while offering to other members of the University and of allied institutions the opportunity to broaden their studies by some knowledge of social theory and social problems.

The undergraduate begins with the Economic History of England and America (Economics 1), which gives him that understanding of the evolution of economic institutions, such as the systems of land tenure, the factory system, the institutions of commerce and trade, which is necessary for any approach to economic discussion. That is followed by the Elements of Political Economy (Economics A), where the fundamental principles of the science are laid down and illustrated by contemporary events. These courses are usually taken during the Junior year, but may be taken a year earlier by students desiring to specialize in this direction. The lettered course is required of every student, and is in the nature of logical discipline for clear reasoning and a preparation for good citizenship. The College is held thereby to have discharged its duty to itself, in fulfilling the minimum required for the degree of A.B., and to the community, in inculcating sound principles in its graduates.

For the majority of undergraduates these courses are but the preliminary sketch, the details of which are to be filled out by the more intensive study of Senior year. For this abundant opportunity is offered in the course on modern industrial problems, money, and labor (Economics 3), in the treatment of finance and taxation (Economics 4) and in the critical consideration of theories of socialism and projects of social reform (Economics 10 and 11). At the same time the elements of sociology (Sociology 15) furnish a broader foundation for generalization in regard to the fundamental principles of social life, and afford the student on the eve of graduation an opportunity to coördinate his knowledge of history, economics, philosophy, and ethics into a theory of society.

These courses of Senior year constitute the fundamental university courses, and are frequented by graduates of other colleges and by many students from the law school, the theological seminaries, and Teachers College, who find them valuable as auxiliary to their main lines of study. For the specialist and special

student these courses in their turn are preliminary. They form the introduction to the university courses proper.

Here the specialist finds opportunity for development in economic theory (Economics 8, 9, and 10) and for further practical work (Economics 5 and 7), for sociological theory (Sociology 20, 21, and 25), for the treatment of problems of crime and pauperism (Sociology 22 and 23), and for the theory and practice of statistics as an instrument of investigation in all the social sciences (Sociology 17, 18, and 19). Crowning the whole are the seminars in political economy and sociology, and the statistical laboratory, where the student is trained for original work.

Columbia University has attempted thus to formulate in the Department of Economics and Social Science a programme that shall be systematic, in the sense of orderly development and logical sequence (the course covers four or five years), and at the same time flexible, for the purpose of meeting the just demands of a great variety of students—the undergraduate, the specialist, and the special student.

R. M.-S.

#### FACULTY OF PURE SCIENCE

*Department of Astronomy.*—Professor Jacoby attended the conference of astronomers and astrophysicists held in August at the observatory of Harvard University, and there presented a paper entitled *Photographic Researches near the Pole of the Heavens*. This paper is in course of publication by the St. Petersburg Academy of Sciences. The further prosecution of these researches will be made with the measures of the Helsingfors photograph to which reference is below made. Dr. H. S. Davis presented to the conference a paper on *The Parallaxes of  $\delta^1$  and  $\delta^2$  Cygni and the Probable Physical Connection of these two Stars*.

Except for the cessation of the various courses of lectures, the work of the astronomical department continued during nearly the entire summer. At the observatory, Professor Rees and Dr. Davis have carried on the series of observations for the determination of the variation of latitude and the constant of aberration. Under the direction of Professor Jacoby, Miss Harpham and Miss Tarbox have made a very extensive series of measures of a photograph of the stars surround-

ing the north pole of the heavens. This photograph was made at the observatory of Helsingfors, Finland, which is the most northerly of existing observatories of precision, and therefore best suited for photographing the pole. It was sent to Columbia for measurement and discussion; and it is expected that, when completely reduced, the measures made last summer will furnish information of the greatest interest to astronomers.

The following papers by members of the Astronomical Department were presented at the Boston meeting of the American Association for the Advancement of Science: *Variation of Latitude and the Constant of Aberration, from Observations at Columbia University Observatory during the Years 1894-98*, by J. K. Rees, Harold Jacoby, and H. S. Davis. *The Præsepe Group, Measurement and Reduction of the Rutherford Photographs*, by Dr. Frank Schlesinger.

Contributions from friends of the Observatory have enabled the Director to retain the services of Miss Harpham, A.M., as chief computer, and Miss Magill, A.B., as assistant computer. It has been possible, also, to add to the computing force Miss Mary Tarbox, A.B. The computing force is engaged on the reductions of the variation of latitude observations, the Rutherford and the polar trail plates.

The funds supplied by Miss Catharine W. Bruce, of New York City, have enabled the University to appoint Dr. G. W. Hill lecturer on Celestial Mechanics. Dr. Hill offers a course on Celestial Mechanics, open to graduate students in the University, and an elementary course on the same subject, which is open to the public without fee.

*Department of Mechanics.*—The history of mechanics as a subject of study in the curriculum of Columbia University may be traced backwards to the first professorship in Columbia College. This professorship was that of "Mathematics and Natural History, under which title was included a wide range of scientific subjects—and yet not so wide but that the incumbent was charged also with instruction in the Greek and Latin languages."<sup>1</sup> It was natural in those early days, considering the English origin of the College, that English rather than Continental models should have been followed in presenting mechanics. Thus, in analogy

<sup>1</sup> See address of Professor Van Amringe on the occasion of the laying of the corner stone of Fayerweather Hall, May 2, 1896.

with the title of Newton's Principia (*Philosophiæ Naturalis Principia Mathematica*), the various professorships under which mechanics fell were those of Mathematics and Natural History, Natural Philosophy, Natural History, and Natural and Experimental Philosophy and Chemistry. The names of the professors holding these titles and the limiting dates of the incumbency of each are as follows: Daniel Treadwell, 1757-1760; Robert Harpur, 1761-1765; Samuel Clossy, 1765-1776; Samuel Bard, 1785-1786; Henry Mayes, 1785-1786; John Kemp, 1799-1812; Robert Adrain, 1813-1820; James Renwick, 1820-1853; Richard S. McCulloh, 1853-1857.

Mechanics under that name was not recognized until 1857, when the chair of Mechanics and Physics was created. Professor Richard S. McCulloh occupied this chair from 1857 to 1863, when he was succeeded by Professor Ogden N. Rood. The Professorship of Mechanics and Physics was continued until 1893, when the present Departments of Physics and Mechanics were established. In the meantime, however, in 1865, soon after the organization of the School of Mines, the work of instruction in rational mechanics was delegated to the Department of Mathematics and Astronomy, which was under the direction of Professor William G. Peck from 1865 to 1892. During the academic year 1892-93, after the death of Professor Peck, the work of instruction in mechanics was carried on under the direction of Professor J. K. Rees.

The introduction of analytical mechanics as a formal subject of study seems to date from the establishment of the School of Mines. During the long period of his connection with this School, Professor Peck gave an excellent course in mechanics as treated by the aid of the differential and integral calculus. His work on *Analytical Mechanics* was well known here and elsewhere as a capital text-book. During the same period Professor Peck gave also a less rigorous but highly instructive course designed to meet the needs of students in the College.

The Department of Mechanics, as established in 1893 and as at present constituted, conducts work under three faculties of the University—that of the College, that of Applied Science and that of Pure Science. In addition to its obvious field of rational mechanics, the department has assigned to it the duty of instruction in electro-mechanics, thermodynamics, and hydromechanics.

The courses of instruction offered by the department may be divided into three classes, namely: first, those given primarily for undergraduates in the College; secondly, those given primarily for undergraduates in the Schools of Applied Science; and thirdly, those designed especially for graduate students. The courses presented in the College are intended to give the student a good idea of the objects, results, and history of mechanics, without entering into details requiring a knowledge of higher mathematics. The courses given in the Schools of Applied Science require acquaintance with the methods of calculus and are expected to give the student a working knowledge of mechanics. The courses given in the School of Pure Science are designed to explain the methods of advanced mechanics and its important applications in the theories of gravitation, electricity, magnetism, heat, light, and fluid motion.

Mechanics has never been a popular subject of study in any but the technological schools of the educational institutions of America. It has been regarded as a "dismal science," if not a dead one. This is a curious phenomenon, when we reflect on the proverbial mechanical capacity of our race. There are indications, however, that the educational importance of mechanics is now better understood, and that its value as an instrument of investigation is now better appreciated. Under these favorable auspices the Department of Mechanics offers a large tender of courses, in the confident expectation that those who pursue them will reap rewards in every way commensurate with the arduous efforts essential to an understanding of the science of matter and motion.

R. S. W.

#### BARNARD COLLEGE

The statistics of registration this year at Barnard College are as follows:

Undergraduates . . . . .	130
Graduates . . . . .	68
Special Students . . . . .	33
Students of Music . . . . .	34
	<hr/>
	265

Under the present regulations all special students, save those in Music, are required to pass the full examination for entrance to the Freshman class; and it may, therefore, be said that practi-

cally the whole student-body is systematically prepared and evenly developed, and is consequently ready for effective work. Of the total number, 101 attend courses at Columbia. The graduate students are thus distributed, with duplications: School of Philosophy, 40; School of Political Science, 21; School of Pure Science, 16.

As all of these schools now offer courses to properly qualified women on the same terms as to men, it has been thought best to register the women in the offices of the deans of the various faculties instead of in that of the dean of Barnard College. This arrangement is a formal acknowledgment of what has for some time been the fact, namely, that the graduate women enrolled at Barnard College are actually students in Columbia University.

The method of contingent giving has again been fruitfully applied to Barnard's finances. The sums of \$10,000, \$25,000, and \$100,000 were promised to the College by Mr. John D. Rockefeller, Mrs. A. A. Anderson (the donor of Milbank Hall) and an anonymous friend, respectively, on the condition that \$95,000 more should be raised not later than October 3d. The condition was fulfilled; and Barnard begins the year freed from debt, and with with a fund of \$100,000, which it is hoped may be the nucleus of an adequate endowment.

E. J. S.

#### TEACHERS COLLEGE

The enrolment of new students has been unexpectedly large. The following table shows the nature of the increase over the enrolment of last year.

#### *Enrolment of Students.*

	1897-98.	1898-99.
Candidates for Higher Diploma, etc.	—	61
Candidates for General Diploma:		
(a) Fourth-Year Class	22	32
(b) Third-Year Class	23	18
(c) Second-Year Class	16	19
(d) First-Year Class	<u>11</u> 72	<u>21</u> 90
Candidates for Departmental Diploma:		
(a) Second-Year Class	—	10
(b) First-Year Class	—	<u>29</u> 39
Students not Candidates for a Diploma:		
(a) From Columbia University	9	17
(b) From Barnard College	23	8
(c) Special Students	<u>65</u> 97	<u>38</u> 63



## Extension Students :

(a) In College	299	343
(b) In Brooklyn	—	228
(c) In Queens	— 293	175 746

## Horace Mann School :

(a) Kindergarten	26	42
(b) Elementary School	218	250
(c) High School	151 395	200 492

Total

863 1491

The registration of graduate students is larger than ever before in the history of the institution. Twenty-five colleges and universities and sixteen states are represented. Among the general students and graduates fifteen normal schools are represented. So far as it is possible to judge at this early date, the material in the entering class, as well as among the graduates, is excellent.

The following schedule gives a good idea of the increase in the number of hours of instruction offered in various subjects and in the number of students attending the various classes :

Department.		Hours of instruction		Students	
		1897-98	1898-99.	1897-98	1898-99.
Education	1 — Russell	3 }	3 }		65
"	2 — Russell (97)			23	
	Butler (98)	1 }	2 }		56
"	3 — Elkin (97)				
	McMurry (98)	1½ }	1½ }	31	108
"	4 — McMurry	..	3	..	20
"	5 — McMurry	..	1½	..	40
"	6 — Gilbert	1	2	5	11
"	8 — Russell	..	2	..	22
"	9 — Wohlfarth	½	2	25	20
"	10 — Wohlfarth	1	1	8	6
" Sem.	1 — Butler	..	2	..	1
" "	2 — Russell	2	..	9	..
" "	3 — McMurry	..	2	..	11
		(10)	(22)	(101)	(360)
Education 11 to 25 (Methods)		6	23	70	87
Education—Total		16	45	171	447
Art		27	32	188	235
Biology		6	6½	23	104
Domestic Art		7	9	52	34
Domestic Science		5	15	14	42
English		8	9	58	81

Geography	4	5½	43	66
History	7	9	52	86
Kindergarten	8	15	55	61
Manual Training	21	35	59	78
Mathematics	½	3	15	19
Music	4	8	52	61
Psychology	1½	1½	23	82
Physics and Chemistry	4	4	60	66
Final Total	119	197½	865	1462

Since the June *Bulletin* went to press, the following appointments have been made: Miss Mariam Winchester, from the State Normal School, Winona, Minn., to the position of teacher in the third and fourth grades in the Horace Mann School; Miss Mary F. Kirchwey, from the Adelphi Academy, to the position of teacher in the fifth and sixth grades in the Horace Mann School; Miss Anna B. Lathrop, from the School of Pedagogy of Buffalo University, to the position of teacher in the seventh and eighth grades in the Horace Mann School; Miss Clara A. Hart, from the Jersey City High School, to the position of teacher in the Horace Mann High School.

In nearly all departments there has been an increase in attendance, and in some departments it has been necessary to add a number of special assistants in order to carry on the work properly. The Department of Biology has been equipped with a large number of new instruments; and the Department of Geology and Geography has received from the United States Geological Survey, as a gift, a teaching collection of rocks for the use of the school and college classes. The Bryson Library has been rendered more accessible and convenient for advanced students by the addition of three new seminar rooms. Mr. and Mrs. Samuel P. Avery have provided for the Avery Collection by fitting up a very attractive and comfortable reading room immediately adjoining the general library; while Mrs. Peter M. Bryson has provided for two additional seminar rooms, one for the use of the students in the various courses in the Department of Science, and the other for the use of students in education. The value of the library from an educational standpoint has been very greatly increased by the purchase of a large collection of school reports. This collection is designed as the nucleus for a complete library of such reports from every state and every important educational center in the United States and Canada. So far as feasible, it is

designed to add to the collection foreign publications of a similar nature.

On the athletic side the facilities have been extended so far as possible at the present time. On the east side of the building an out-door basket ball court has been fitted up for the use of the college girls. The court communicates directly with the gymnasium, so that it is possible for the court to be used, not only for basket ball, but for any out-door gymnastic exercises. New lockers, baths and dressing rooms have been added on the south side of the Gymnasium. On the west side of the building, the vacant lots belonging to the College have been graded and fenced, and furnish a very convenient though somewhat small athletic field for the use of the Horace Mann School boys. The football practice takes place here, and an out-door basket ball court has been put in order without interfering with the tennis courts.

#### ALUMNI NOTES

The following minute was adopted by the Class of '61, at a meeting held on Commencement Day:

"We, the survivors of the Class of '61, Columbia College, assembled in College Hall on Commencement Day, June 8, 1898, congratulate ourselves and one another on the opportunity afforded to us for a reunion of the Class under circumstances most gratifying and auspicious in time and place, and on our ability to avail ourselves of the opportunity thus afforded; we congratulate Alma Mater on her wonderful advance in proportions, scope, and usefulness since the era of our studentship and graduation; we renew in love and reverence our filial allegiance to the old College, and avow our hearty fealty to its new development, Columbia University; we hold in loving memory those of our Class who have passed from this world since our graduation and the honored President and Professors of our College days, none of whom survive; and we extend a brotherly greeting to the graduates of '98, who are sent forth by Alma Mater, as we were, in an atmosphere redolent with patriotism, amid the clash of arms, on land and on the sea, in defence of the glorious flag of the Union."

For the information of alumni we make the following extracts from the reports presented at the annual meeting of the Alumni Council, held October 26, 1898:

Since the Annual Meeting of the Council held October 27, 1897, four meetings of the Council have been held, as follows:

November 22, 1897. At this meeting the standing committees for the year were announced, and a special committee was appointed to consider the question of a general reunion of alumni in connection with the Commencement Exercises of the University.

February 3, 1898. The Special Committee on Alumni Reunion reported, and submitted a programme for Commencement, 1898, approved by the President and a committee of the University Council. The By-Laws were amended, Article V, Section 3, by substituting the word "University" for "College."

March 8, 1898. A committee was appointed to coöperate with the President of the University in the matter of Commencement arrangements.

April 12, 1898. The general plan for an alumni reunion on the afternoon of Commencement Day was approved.

It thus appears that during the past year the Alumni Council has, by its participation in the arrangements for the University Commencement, taken a further step in pursuance of the objects for which the Council was established, namely: "to extend the knowledge of the University and its work; to establish closer relations between the Alumni and the University; and to further such measures as, in its judgment, will tend to promote the interests of the University and its several parts."

No change in the representation of the Alumni Associations in the Council has been reported.

The Committee on Athletics reported as follows:

The past year has developed a marked improvement in the athletic affairs of the University. The completion of the new Gymnasium and the system of instruction now being carried on there under the guidance of Dr. Savage cannot fail to be of the utmost importance to the teams which may represent the University in contests with other universities and colleges, and, above all, will surely tend to the direct improvement of all members of the University. For the first time, Columbia is now the equal in this respect to any other university, if not in fact superior to them all.

Rowing has been placed upon a most satisfactory basis. The boat house was used by a larger number of students than per-

haps ever before. The equipment in the way of boats, etc., was largely increased. The crews representing Columbia at Saratoga in July did so in a manner to do honor to their College and to themselves. Too much credit cannot be given to Mr. J. A. B. Cowles, '93, for his services in their behalf. The outlook for rowing in the coming year is most encouraging. It will, however, be necessary, in all probability, to secure boating accommodations for the 'Varsity and Freshmen crews upon the Harlem River for some weeks prior to their leaving the city. The roughness of the water on the Hudson last year was a most serious impediment to their coach.

Track athletics continue to be in a most unsatisfactory condition. The bicycle team retained the honors won the year before, but the track team made a miserable showing. A complete reorganization of this branch of athletics is earnestly recommended.

In fencing, Columbia carried off the honors from its competitors, and much praise is due to the team representing her.

The newly organized base-ball organization completed its year with honor to itself and to Columbia. All the games scheduled were played, with a fair amount of success, and the organization closed its season with a surplus of some \$400. With a year of experience behind it, the record this year should be still better.

Your committee is informed that earnest efforts are being made to place foot-ball upon a proper and firm basis. Class and other teams are being formed throughout the University; and, while no attempt will be made this year to play matches with other colleges, every effort will be made to enable Columbia to be properly represented in this sport in the year 1899.

As reported last year, there is great need of an athletic field in the near vicinity of the University, but your committee is glad to report that efforts are now being made by the undergraduates to secure such a field, and with fair prospect of success.

For the Committee,

ALEX. B. SIMONDS, *Chairman*.

Professor Van Amringe was elected Chairman of the Council for 1898-99, and William Allen Smith, Esq., secretary and treasurer.

The following are the Standing Committees for 1898-99: On Alumni Organization: Geo. L. Peabody, M.D., William Bar-

clay Parsons, Alex. B. Simonds. On Alumni Meetings: John B. Pine, Geo. G. DeWitt, Robert C. Cornell, F. P. Kinnicutt, M.D., Van Horn Norrie, M.D., T. M. Cheesman, M.D., Wm. Allen Smith, Frederick R. Hutton, Howard Van Sinderin. On Athletics: Alex. B. Simonds, Walter B. James, M.D., D. LeRoy Dresser.

The College Alumni Association held its annual meeting at Sherry's on October 3, re-elected as officers Nicholas Fish, '67, president; Edward Mitchell, '61, vice-president; Theodore F. Login, '76, treasurer; and William T. Lawson, '82, secretary. The following were elected to fill vacancies in the Standing Committee: Stuyvesant F. Morris, M.D., '63; George S. Delvitt, '67; Samuel Sloan, Jr., '87, and John H. Prentice, '97. A. B. Simonds, '73, having served on the Committee for fifteen years, declined a re-election.

Dr. Morris, the retiring Chairman, presented the report of the Standing Committee, recounting the principal events of the past year and dwelling with especial satisfaction upon the Anniversary Alumni Meeting and the class reunions held on Commencement Day. The report urges the need for a "College Hall" and for dormitories:

"The site on Morningside heights is the most beautiful on the Island of Manhattan; it is adorned with splendid buildings devoted to engineering, physics, chemistry, biology and kindred scientific departments, with an unrivalled edifice for the University library, approached through a magnificent and costly entrance court, and yet 'College Hall' is an old brick dwelling house, conspicuous by its insignificance and suggestive of indifference and disdain. This is not dignified, it is not worthy of the College, its history, its reputation, its present high state of efficiency. It is a reproach that should be speedily removed, and, as the resources of the institution seem to be, at present and for some time to come, fully committed to other undertakings, it is incumbent upon our Association to take active steps to procure a suitable building. Yet, in spite of such discouragements, the number of students in the College was larger than ever before, and from all appearances the number this coming year will be larger still."

"Dormitories are a crying necessity for the College, even more than for the other branches of the University. It is earn-

estly hoped that during the coming year plans may be consummated to provide them. Again is your attention called to the desirability of increasing the membership in our Association. Each member should endeavor to bring in those of his classmates who have not joined. In this way is a more definite knowledge of the College obtained and College feeling strengthened."

A reference is also made to the opening of the new Gymnasium, and the athletic events of the year, and the announcement made that, by an arrangement with the University Press, copies of the UNIVERSITY QUARTERLY, which is to take the place of the *Bulletin*, will be sent free to all members of the Association.

At the first meeting of the Standing Committee, F. S. Bangs, '78, was elected chairman. The office of the secretary is at 32 Nassau Street, and all applications for admission to the Association should be addressed to him. The membership of the Association is not limited to graduates of the College. Men who did not graduate with their classes and graduates of all of the Schools of the University are eligible as associate members.

The Rev. Rockwood McQuesten, A.B., '63, Ph.D., has accepted a call to the Ravenswood Presbyterian Church, Long Island City.

George Anderson Lawrence, A.B., '62, has been elected secretary of his class. His address is 755 Water Street.

The Rev. Frederick Morse Cutler, A.B., '95, has received the degree of B.D. from the Union Theological Seminary, and is now pastor of the Congregational Church at Armour, Douglas County, South Dakota.

Capt. William G. Bates, A.B., '80, LL.B., '82, served as Assistant Adjutant General on the staff of Maj. Gen. Francis V. Greene, U.S.V., and was recommended for the brevet of Major for services in the Manila campaign. At the outbreak of the war with Spain, Capt. Bates, who was Adjutant of the Seventy-first New York, entered the United States service with the regiment, and left it when Col. Greene was later appointed Major General of volunteers, to serve on the staff. His services as a volunteer officer were highly commended by Gen. Greene.

The Committee on the General Catalogue invite corrections and additions to the recently published pamphlet of War Rec-



ords. Since the pamphlet was issued the following particulars have been obtained:

James Benkard, A.B., '61, A.M.: Private 7th N. Y. N. G., April, 1861; Volunteer Aide on Staff of General Rufus King. 1st Lieut. Wis. Vols., Sept. 19, 1861. Capt. and Add'l A. D. C., June 16, 1862. Served on Staff of Brig. Gen. J. P. Hatch and Maj. Gen. C. C. Augur.

Richard Baxter Brown, '64, M.D.: Brev. Maj. U. S. Vols., 1865-6; died 1895, aet. 60.

Henry A. Danker, '64, M.D., was medical officer on U. S. Monitor *Tecumseh*, and was lost on her during the battle of Fort Morgan, Mobile Bay, August 4, 1864.

Thomas Mackaness Ludlow Chrystie, M.D., who matriculated in the College of Physicians and Surgeons, Class of 1866, served as Medical Relief Agent, Cavalry Camp Hospital, Army of the Potomac, and as acting Ensign U. S. Navy, on Staff of Rear Admiral Farragut, Sept. 9, 1864. Resigned June 12, 1865.

Julien T. Davies, A.B., '66, A.M., LL.B.: Private 22d N. Y. N. G., June 20, 1863 to Jan. 1, 1866.

Orlando H. Morris, A.B., '54: Maj. 66th N. Y. Vols., 1861; Col. 1862-64. Post Brig. Gen. U. S. Vols., 1864. Killed at Battle of Cold Harbor, June 3, 1864.

Hamilton Fish, Jr., Class of 1895, Sergt. 1st U. S. Vol. Cavalry ("Rough Riders"), 1898. Killed in action July —, 1898, Battle of Santiago de Cuba, aet. —.

George Edwin Bentel, A.B. (Lafayette Col., 1897), matriculated with Col. Univ. Law School, Class of 1900: Astor Battery U. S. Vols., 1898. Wounded in action at (Manila?).

Frederic Shonnard, Class of 1862: officer 6th N. Y. Artillery during Civil War. 442 Warburton Ave., Yonkers, N. Y.

William Anderson Mitchell, A.B., 1863, M.D. (Yale Col., 1865): Co. B, 7th N. G. N. Y., 1862-63. Med. Cadet, 1864. 140 Broadway, N. Y. City.

#### *Deceased Alumni*

NOTE: Degrees, unless otherwise indicated, are to be regarded as having been bestowed by Columbia College.

Aaron Ernest Vanderpoel, (CL), A.B. 1867, LL.B. 1869, A.M.: Trustee Col. Coll., 1877-1889. Aet. 53, died 1898.

William Henry Conover (CL), A.B. 1871; LL.B. (Union

Coll. 1876): formerly attached to Law Dept. City of Newark, N. J. Died 1898.

Frederick Augustus Brown, (B), A.B. 1872. Aet. 46, died 1898.

Emilio Ysidoro Del Pino, (CL), A.B. 1873, LL.B. 1875, A.M. 1876. Aet. 47, died 1898.

Philip Redington Mudge Hildreth, A.B. 1894: Troop A, N. G. N. Y. Aet. 26, died 1898.

David Webb Hodkins, M.D. 1863: A. A. Surg. U. S. A., 1864-5; Memb. Mass. Leg., 1882; Med. Exam. 1877; Selectman East Brookfield, Mass. one year; Memb. School Bd. 20 years. Died 1898.

Sherman Morse, M.D. 1863: Asst. Surg. 14th N. Y. H. Arty., disch. 1865. Died 1898.

Edward Constant Seguin, M.D. 1864: Med. Cadet U. S. A. 1862-64; Asst. Surg. U. S. Vols. 1865; A. A. Surg. U. S. A. 1864 and 1868-69; Lect'r Dis. Nerv. System, Col. Coll. 1868-73; Clin. Prof. Dis. Nerv. System Col. Coll. 1873-87; Prest. N. Y. Neurological Society 1877; Phys. Manh. E. & E. Hosp.; Cons. Phys. French Hosp.; Memb. many European Neurological Societies, etc. Aet. 55, died 1898.

Joseph O'Dwyer, M.D. 1866, LL.D. (St. John's Coll. Fordham 1891). Aet. 66, died 1898.

Warren Kemble, M.D. 1868: Pvt. 1st Lt. 120th N. Y. Vols. 1862-65. Aet. 57, died 1898.

William Coe Holmes, M.D. 1880. Aet. 43, died 1898.

George Trowbridge, M.D. 1881, A.B. (Yale Coll. 1878). Aet. 43, died 1898.

John Blair Gibbs, M.D. 1882; A.B. (Rutgers Coll. 1878); M.D. (Univ. of Pa. 1881): Instr. Post Graduate Hosp.; Asst. Attndg. Surg. Lebanon Hosp.; A. A. Surg. U. S. N. 1898, U. S. S. "Panther." Killed in action Guantanamo, Cuba, June 11, 1898. Aet. , died 1898.

Louis Hess, M.D. 1886, Ph.G. (Coll. Phar. N. Y.). Aet. 38, died 1898.

Abraham Leopold Fromme, LL.B. 1887, A.B. (Coll. City N. Y.). Aet. 32, died 1898.

#### *Deceased Matriculants not Graduates*

George Waterbury Lawrence, Class of 1882. Died 1898.

Sidney Beresford Pickhardt, Class of 1888. Aet. 29, died 1896.

## UNDERGRADUATE NOTES

The new Gymnasium, the failure to complete which last year was a continual source of disappointment to undergraduates, was finished and equipped during the summer, and on the first day of the fall term was ready for the use of the returning students. Columbia men have long looked forward to the time when they should possess such a building as the opening of a new era for Columbia life and athletics. Already this view seems justified. The Gymnasium became straightway a great center of undergraduate activity and interest. The first warm days of October and the novelty of such a luxury made the great swimming-tank at the outset especially popular. As many as three hundred men visited the tank in a single day. Lively interest is taken in all branches of gymnastics, and many men besides those underclassmen for whom two hours a week are prescribed, exercise regularly on the floor. There are classes for instruction already formed, and Dr. Savage will authorize the formation of others for the benefit of those who cannot attend at the regular optional hours. The fencers, taking advantage of the greatly increased facilities which are offered them, have revived and reorganized the old Fencers' Club. It should be remembered that Columbia has long been prominent in fencing and now holds the inter-collegiate championship. Some of our most expert fencers, Messrs. Lawson, Kirby and Mitchell among others, are no longer at Columbia; but much excellent and promising material still remains.

The Gymnasium will, of course, be of enormous value to our athletic teams when in training. Appliances of every kind have been provided for them. It is the aim of Dr. Savage and of the Faculty Committee on Athletics to make the Gymnasium the center of athletic interests at Columbia. Among other regulations that will tend to bring this centralization about, is that which requires every team captain to file with the Director an application for each game or series of games ten days in advance, and to present a full report after the contest has been held. Thus Dr. Savage will have in his possession complete records of all our athletic events, and it is to him that all should go for information concerning such matters, especially if it be for outside publication. Such a gathering together, into one strong hand, of the threads of our athletic interests will render impossible many

ancient abuses and will inaugurate the management of our athletics on a very much higher and sounder basis than heretofore. Dr. Savage should receive the hearty support and coöperation of every one to whom Columbia's good name and success are dear.

There is a widespread feeling of disappointment that Columbia is not represented this fall by a 'Varsity football team. It is thought by many that an eleven might have been put into the field with considerable success, as there were both good material and the prospect of ample financial support. However, the general disappointment this year will prove the very best guarantee for having a team next fall. Indeed, the prospects for the future are already very bright. At a large and enthusiastic mass meeting held November 3d, in the gymnasium, a foot-ball association was formed, for which a constitution was adopted and temporary officers were elected. As there is no foot-ball, this is a dull season in athletics. Present activity is largely in the form of preparation for the spring. Mr. J. W. Mackay, 1900, has been elected captain of the '99 'Varsity crew. Mr. W. B. Symmes was recently elected President of the Base-ball Association, and Mr. J. D. Pell, '99, captain of the 'Varsity base-ball team. Mr. Frank Stevens, '99, is captain of the track team for the present year.

There are, however, a few minor athletic events to chronicle. On Saturday, October 29th, the Rowing Club held its annual fall regatta. The race between the two divisions of the Freshman Class was won by the College; while in the interclass race, the Sophomores beat both Juniors and Seniors, although in the latter's boat there were five 'varsity oars. The Tennis Club has at length, in spite of much stormy weather, brought to a close its regular fall tournament. Mr. Pell, '99, was the winner in the singles, and in the doubles he, with Mr. Whigham, '99, Law, was again successful. The entries for the singles, sixty in number, show an increase of twenty over last year and of twice that number over the year preceding. Tennis is very popular here and the club is one of the most prosperous organizations at Columbia. A golf tournament was held recently at Ardsley to select representatives at the intercollegiate tournament. The Columbia team, composed of S. F. Morris, Jr., captain, W. H. Dixon, Cornelius Fellowes, Jr., B. W. Smith, Bradford Darach, and L. Rhoades, was unsuccessful, being pitted against Yale's victorious golfers.

All class elections have now been held. The presidents for the year are as follows: Class of '99, F. S. Hackett, College, and H. H. Henderson, Science; 1900, W. U. Moore and D. J. Burns; 1901, J. B. Smith, Jr. and W. B. Mitchell; 1902, A. H. Johnson and D. M. Armstead. Other class matters of general interest are the choice by the Sophomore class of a play "A Boy," by A. M. Lederer, for its Show, and the decision of that class both in the College and in the School of Applied Science, not to hold a cane-rush this year. This decision will probably give the death-blow to rushing at Columbia. For some time the continuance of this ancient custom, so unquestioningly accepted as a hallowed Columbia tradition, has been a matter for debate and divided opinion. Last year the other Sophomore class in the School of Applied Science voted against rushing. Then the verdict was only partial; now it is general and a revival of the cane-rush seems unlikely. Instead of the rush there will this year be held a cane-sprees, modelled on a famous Princeton institution, and tried here successfully last year for the first time. The Junior Ball Committee has chosen for its officers H. H. Boyesen, Chairman; W. S. Turner, Secretary, and Walton Oakley, Treasurer; and for its Patroness Committee, Messrs. Gallatine, Leffert, Howe, and Loney.

On the literary side of college life the most important event to note is the recent formation of a club for those undergraduates in the College who are interested in literature. Students taking English XI., Professor G. E. Woodberry's course in Nineteenth Century Literature, are eligible to membership on their own application, and all others on their nomination by a member. No name for the club has yet been chosen, but a constitution has been adopted and temporary officers have been elected. Mr. W. A. Bradley and Mr. G. S. Hellman, both of the senior class, are at present president and secretary. Unlike the old Shakespere Society, the new organization has not for its object active work and study, but, quoting the constitution, "to form a bond of friendly union among undergraduates interested in literature and to support, maintain and further the interests of Columbia College." A series of social meetings will be started in the near future at which there will be addresses by well-known men of letters.

*Spectator* remains a weekly, and will probably continue in that form until the erection of dormitories creates conditions more

favorable to a daily newspaper. Changes in the personnel of the staff have been made by the resignation of Mr. Maxwell, '00, Business Manager, and by the election of Mr. Goelet Galatin, '00. *Spectator* now criticises regularly the current issues of the two literary papers. This fact is noteworthy as showing the increased interest at Columbia in undergraduate literary work. The *Literary Monthly* has elected to its editorial board Miss Ellinor Ten Broeck Reiley, Messrs. B. M. Ernst, W. R. Grace and Knowlton Durham. The *Morningside* has elected Miss Grace Goodale and Messrs. J. M. Erskine, Hugh Elliott, W. R. Quinn and M. A. Strauss.

There are still many facts of miscellaneous interest. Mr. F. K. Seward has resigned the presidency of the Y. M. C. A. and Mr. C. C. Rider has been elected to fill the vacancy. Professor McDowell is again devoting much attention to the University Chorus. The Philharmonic Society has secured the services of Mr. Gustav Hinrich as leader for its orchestra and has issued a call to all musicians, not only at Columbia, but at Barnard and at Teachers College as well. Glee, banjo and mandolin clubs have been organized and all three are grouped together under a single manager as the Glee Association. The Freshmen Debating Society has been organized and has elected temporary officers. The Debating Union is arranging a return debate with the University of Chicago. The Chess Club has elected as officers for the year Mr. Phillips, '99, Law, President, and A. S. Mayer, Secretary and Treasurer, and has arranged with the Chess Club of the University of Pennsylvania for a match series to be played in Philadelphia, November 11 and 14. Thus in every department of undergraduate work there are signs of life and of re-awakening activity.

W. A. BRADLEY, '99

#### GENERAL NOTES

The war with Spain found the men of Columbia ready, as usual, to offer their service to their country. Although the returns are as yet incomplete, it is evident that the University was well represented in the various branches of the governmental service.

From the College there are known to have gone to the war seven students; from the School of Applied Science, thirteen;

from the Law School, seven; and from the Medical School, twenty-one. Among these men there was no loss of life. Of the graduates who went to the front no list can yet be made up, but events have brought prominently before the public eye certain of the recent graduates in the service. Dr. John Blair Gibbs, of the Class of '82 in the College of Physicians and Surgeons, was killed at Guantanamo; Hamilton Fish, Jr., of the Class of '95 in the College, was one of the first to fall from the ranks of the "Rough Riders" in the advance against Santiago; and Dr. G. W. Lindheim, of the Class of '98 in the College of Physicians and Surgeons, died from typhoid fever contracted while caring for sick soldiers. These losses, though few in number, are most severe.

The officers who were able to serve, it is interesting to note, found that their professional attainments fitted them for positions of exceptional usefulness. Thus, Mr. G. F. Sever, Instructor in Electrical Engineering, was early called to take charge of the signal station at Montauk Point; and Adjunct Professor C. E. Pellew, of the Department of Chemistry, was soon transferred to the Signal Corps under General Greely. Rev. George R. Van De Water, Chaplain of the University, went to the front as Chaplain of the 71st Regiment of the New York Volunteers. Prof. John B. Moore, Hamilton Fish Professor of International Law and Diplomacy, was summoned, by the personal request of President McKinley, to serve, first, as First Assistant Secretary of State at Washington and, later, as Secretary of the United States Peace Commission at Paris.

Less conspicuous, but also expressive of loyalty, were the acts of those who remained at home. A University Red Cross Auxiliary Society, including representatives from all the Schools of the University, transmitted to the National Association over \$6,750. The University, moreover, continued the salaries of all officers and employees who went to the war; and gave leave of absence, with liberal conditions, to students going to the front.

All in all, Columbia has borne well this test of loyalty.

On Saturday, September 24th, the mortuary chapel in the cemetery at Sheffield, Mass., erected by the Trustees of Columbia College in memory of the late President Barnard and Mrs. Barnard, was dedicated and formally presented by President Low, in behalf of the Trustees, to the Cemetery Association of Shef-



field. The chapel stands just at the gateway of the cemetery. It is built of native rubble stone, lined with light brick, and finished in Southern pine and oak; and is furnished with an organ, a pulpit and other accessories essential to the holding of services. A bronze tablet on the outer front wall bears the inscription: "In memory of the Reverend Frederick Augustus Porter Barnard, S.T.D., a son of Sheffield, for twenty-five years President of Columbia College in the City of New York, and Margaret, his wife, both of whom were benefactors of the College, this chapel is erected by the Trustees, MDCCCXCVIII." On an interior wall the following inscription is engraved on a marble tablet: "Beneath this chapel lie the remains of F. A. P. Barnard, the eighth President of Columbia College; born in Sheffield, Mass., May 15, 1809; died in New York City, April 27, 1889, and of his wife, Margaret M., born in Carlisle, England, 1827, died in Litchfield, Conn., October 4, 1891." In his address President Low described Dr. Barnard's remarkable career, calling especial attention to his eminence as an educational authority, his distinguished services as President of Columbia, and the devotion and generosity shown both by him and by his wife in leaving their entire property to the College and in founding the Barnard Fellowship.

#### SUMMER SCHOOL IN GEODESY

Professor Jacoby, assisted by Messrs. Derleth and Kretz, had charge of the Summer School in Geodesy. The students of the fourth class in civil engineering attended this school, and made astronomical observations and a geodetic survey at Osterville, Cape Cod, Mass. This work lasted about six weeks.

#### SUMMER SCHOOL IN CIVIL ENGINEERING

Instruction in the theory of surveying is given in full during the lecture periods at the University. The field work, however, is all given at the Summer School with the exception of the hydrographic survey, which for the past two years has been very satisfactorily conducted on the Harlem River, east of the ship canal.

In developing both the theory and the practical work of surveying it has been kept in mind that this work is at the foundation of the field operations of civil engineering. The importance of this branch of instruction is recognized in the careful and thorough manner in which all surveying work is conducted at

the Summer School. The equipment of field instruments is unusually complete, so that small field parties, usually of two students each, can be kept constantly at work during the period allotted for field operations. Each student is thus more readily impressed with his responsibility for accuracy, and at the same time he secures the advantages arising from almost constant use and handling of the instruments. Again, each student may thus be required to prove most satisfactorily his ability to undertake and complete the work assigned to him. Elementary exercises and problems are taken up in the Summer School between the first and second years. From that point the course is developed in natural sequence by the most approved methods of field practice in every branch of plane surveying. The office work is kept abreast of the surveys, as maps, plans and profiles with specifications and estimates are prepared whenever practical work requires them. Both methods and results receive the most careful consideration. It is intended that the methods shall be those approved by experience; and in the application of those methods careful supervision is given, with the intention that the students shall be benefited by the experience of the instructors. The railroad survey completed during the past summer was about two and a half miles long. This work involved reconnaissance, preliminary and location surveys, together with running in curves, cross sectioning, and all the operations requisite for the complete preparation of the line for the work of the contractor.

The entire work of the school was completed in a manner highly satisfactory in every respect. Among other things, great care was taken to maintain the camp in a thoroughly sanitary condition, and it is a source of much satisfaction that not a case of sickness occurred during the entire session.

#### SUMMER SCHOOL OF GEOLOGY

The Summer School of Geology, for the students in the course in Mining, was located the past season in the valley of the James River, Va. Professor Kemp met the class July 2nd, and beginning near Balcony Falls, on the Chesapeake and Ohio Railroad, conducted it over a section extending to Covington. Here the James cuts through the ridges of the Appalachian Mountains in a series of narrow gorges, on whose sides the strata are exposed in a wonderful manner. The heavy beds of sandstones and

limestones have been thrown by the upheaval of the mountains into a grand succession of waves and folds, which have been sawn across by the river and stand out in vivid relief on the sides of the gorges. The class passed from the basal crystalline rocks of the Archean, across the Cambrian, Ordovician, Silurian and Devonian systems, and visited the Natural Bridge and the Low Moor iron mines during the trip. The general programme was laid out with the advice and coöperation of Professor Harry D. Campbell, of Washington and Lee University, at Lexington, and to his many courtesies its success was largely due. Through the kindness of Mr. A. A. Low, every possible attention was extended to the party at the Low Moor mines, by Mr. H. G. Merry, the general manager.

#### SUMMER SCHOOL OF MECHANICAL ENGINEERING

The Summer Class in Mechanical Engineering gives a period of continuous shop experience for students in that course, at the end of both their first and their second year. The summer work of the first year is devoted to an expansion of the students' work in pattern making and its application in the foundry for the casting of metals, and this year such work only was carried on. It was assigned for the first three weeks in June, to give a period of one hundred hours.

The class were given a choice between working the regular shop-day of eight hours, with an hour's rest at noon, and expanding the number of days by working a shorter day. The choice of the regular day was unanimous, and no difficulty was experienced from any lack of endurance or loss of efficiency at the end of the day. Fortunately the weather was favorable.

The class were under the care of Mr. Finch, of the Teachers College staff, and gave great satisfaction by their assiduity and interest. Successful moulds of simple and more complicated designs were made by every student from the drawings, and castings were made from a sufficient number to prove their excellent standard. The practice work was carefully laid out to cover a wide variety of the actual conditions to be met in materials to be formed by the casting processes.

There were no students beyond the first year in the Mechanical Engineering course, which was begun only in the autumn of 1897. Hence, no second-year summer class was to be provided for in 1898. Such a class will be first held in June, 1899.

The third-year students in Electrical Engineering accompanied the Professor of Mechanical Engineering upon his Easter vacation trip to the armor-plate works of the Bethlehem Iron and Steel Company. Special significance attached to this visit, by reason of the imminence of the expected naval encounters, whose later results have been so creditable to the material and machinery of the new navy of the United States. The party consisted of about thirty men.

#### SUMMER SCHOOL OF MINING

The Summer School of Mining, in charge of Professor Peele, assisted by Messrs Alex. J. Campbell and Charles Of, was held in West Virginia and Virginia. Four weeks were devoted to the study of the deposits and methods of mining in the extensive bituminous collieries of the Pocahontas district, in southern West Virginia. The usual mine surveying was done in one of these collieries. Nearly three weeks out of the four were occupied by detail work in the mines of the Caswell Creek Coal and Coke Co., at Bramwell, after which the class visited seven other bituminous mines, most of them situated on Elkhorn River.

This district furnishes excellent examples of large-scale operations, conducted with strict regard to economy in working expenses. A great variety of surface and underground plants was presented for study. The school received a cordial welcome, and every facility for carrying on the class work was afforded by the managers of the various properties. It is worthy of note that the collieries of the Pocahontas field furnish much of the high-grade coal used for the trial trips of the United States war ships. During the visit of the class to one of the mines a shipment of carefully selected coal was being prepared for the Cramps' shipyards.

The fifth, and last, week of the session was spent at the iron and zinc mines and furnaces near Pulaski, Virginia, visits being made to the Bertha and Wythe mines, producing zinc, iron and a little lead, and to the Cedar Run iron mines. At the last named property an interesting surface deposit of hematite ore is being worked.

The class contained eleven students, ten of the fourth year, and one a graduate of 1898 in Civil Engineering, intending to take the mining course.

## SUMMER SCHOOL IN PRACTICAL METALLURGY

The third year of the Summer School in Practical Metallurgy was held during the last two weeks in September. The subject of the manufacture of iron and steel was chosen for study. The class, under direct charge of Professor Howe and Dr. Struthers, visited a large number of metallurgical works at Pittsburg, McKeesport, Latrobe, Johnstown, Steelton, Phoenixville and Pencoed. The work of the students covered the production of cast-iron, wrought-iron and steel, and their conversion into finished product.

## THE SENFF ZOÖLOGICAL EXPEDITION

The Senff Zoölogical Expedition to the Nile was the third which Columbia University has recently sent out to distant parts of the world. Three years ago the first expedition was equipped for Puget Sound, Washington, and established a zoölogical station near the entrance to the Sound, at Port Townsend. Professor Dean, who accompanied the party, extended his work down upon the California coast, securing important and long sought for types, and the main party at Port Townsend made such a valuable collection that the work was continued during the following year, 1897, and extended north to Sitka, Alaska. The collections made by the Sitka party, it will be remembered, were destroyed by shipwreck, but valuable materials were brought home from the Puget Sound region. It was intended to renew the work at this station during the summer of 1898, but the unfortunate death of Mr. Bradney B. Griffin prevented the execution of this plan.

The department had by the two first expeditions secured the developmental stages of *Bdellostoma* and *Chimara*, the former type throwing light on the origin of the vertebrata, the latter on the characters of the primitive craniote; but there still remained the curious African ganoid *Polypterus*, whose development is universally expected to contribute most important evidence as to the origin of the land-living vertebrates, because it is the sole survivor of the race of fishes which appears to have given rise to the Amphibia. The idea was long entertained that the Dipnoan fishes of Australia and South America had the distinction of giving off the Amphibian phylum, and special parties were sent out from the Universities of Cambridge and

Jena for them; but in recent years this idea has been abandoned, and the Crossopterygians, or fringe-finned fishes, a group to which *Polypterus* belongs, have taken this position. The problem, therefore, is one of the most important ones in the whole field of biology. It is anticipated that a study of the life history or the developmental stages of *Polypterus* will finally settle the question; and the probabilities are that they will place this type in a direct line of the ancestors of the higher vertebrates, and consequently of man. As far back as 1892 Professor Dean, while on a travelling fellowship from the University, made independently an attempt to study the developmental stages of this fish. Guided by the advice of his friend, Professor Steindachner, of Vienna, he visited the Nile valley and made a collecting reconnaissance from Cairo to above the great cataract, in the hope of finding a spawning ground of *Polypterus* below the White Nile, where the fish is known to occur abundantly. He was, however, then unable to get to this region, on account of the Mahdi rebellion.

As *Polypterus* occurs only in the equatorial region of Africa upon the West Coast and upon the Nile, the present expedition was an exceptionally expensive and hazardous one, because of the extreme unhealthiness of the Calabar region, and the occupation of the Upper Nile by the Mahdi.

The matter of expense was met in a most generous manner by Charles H. Senff, Esq., to whom the University is already indebted for liberal contributions to the Zoölogical and Chemical Departments. Mr. Nathan R. Harrington, Fellow in Zoölogy, and Dr. Reid Hunt, Tutor in Physiology, were not at all dismayed by the climatic and other difficulties, and volunteered to go to any region in Africa where it was reasonably certain that the fish could be found. After carefully equipping for the work they left New York, during last May, with instructions to be guided by advice of the English and German naturalists, whom they would meet in London. Immediately upon arrival, therefore, they visited the British Museum, and there received the fullest information, both as to Old Calabar and the Nile region from the veteran ichthyologist, Professor Günther, from Dr. Boulenger and others. They were also most hospitably received and entertained at the Royal Society and elsewhere, through the kindness of Professor Poulton, of Oxford,

whose University lectures at Columbia are well remembered. Miss Kingsley, a daughter of Canon Kingsley, and Mr. Henry M. Stanley, the African explorer, both advised very strongly against the Old Calabar region; and it was finally decided that the brightest chances of success lay along the Nile. On arriving in Egypt, through letters from Ambassador Hay, in London, they were most cordially received by the Egyptian government, and every facility was extended them to carry on their work under the Egyptian flag. At the same time application was made to visit the Upper Nile; but the Sirdar declined, on account of the movement of the army towards Khartum, to admit any travelers except these strictly connected with the military operations.

They were entertained as guests in the Fisheries Administration Building, and in addition were provided with a boat and two coast guards to assist them in their collecting. Making their arrangements as rapidly as possible, they proceeded to Lake Menzalah, a shallow basin in the Nile Delta, northeast of Cairo; but after spending three weeks there searching in vain for the fish, they found that its reported occurrence was an error. They, nevertheless, secured in this lake valuable types and a considerable collection of fishes, which thoroughly repaid the time spent there. It then appeared wisest to proceed southward in a systematic search along the shores of the Nile, making inquiries at the markets and gathering information from fishermen. This led them to Mansourah, a small village halfway between the Mediterranean and Cairo; and here, for the first time, they found two specimens of *Polypterus* in the market.

After the location of the fish near Damietta on June 10th, investigation was thereafter carried on continuously until September 10th. A very large dahabiyeh was secured as a floating laboratory near the shore, and parties of from ten to thirty native fishermen were engaged at the work. The fish is known in this region only as "Abou Bichir," or "Father Bichir;" and in the course of a few days all the natives within a radius of thirty miles were aware of the fact that the fish was highly prized by the two representatives of Columbia University—to the natives a wholly unknown educational quantity. The work progressed slowly, but the fish finally began to come in at the rate of two a day. They were kept alive for longer or shorter periods, en-



abling Messrs. Harrington and Hunt to make a great number of original observations upon their habits, etc.

As the summer went on, the fish began to show increasing evidence of approaching maturity in the deposition of ova, but unfortunately the engagements of both members of the party prevented their remaining until the ova were shed. Thus the much desired embryonic stages of the fish have not yet been secured; and the chief results of this expedition are the eighty or more fine specimens of this rare fish, which will be valuable for purposes of research and of exchange for rare types with other museums. Fortunately the unexpected leave of absence of Professor Wilson affords him an opportunity of visiting the Nile region, and it is possible that he may arrive in time to secure specimens for the study of the embryonic stages. If not, a strong effort will be made to send Messrs. Hunt and Harrington back to the Nile during the coming season.

## SUMMARIES OF UNIVERSITY LEGISLATION

### THE TRUSTEES. JUNE MEETING

The President announced the death of Mr. Stephen P. Nash, on June 4th, and offered the following resolution, which was adopted:

*Resolved*, That, in memory of Stephen Payne Nash, a Trustee of this University from 1868 to 1898, and for many years the Chairman of the Committee on the School of Law, one of the professorships in law be now and hereafter known as the Nash Professorship of Law, the occupant thereof to be known as the Nash Professor of Law.

The following letter was received from Mr. Jacob H. Schiff:

RUMSON ROAD, SEABRIGHT, N. J.

27 Pine St., June 5, 1898.

DEAR MR. LOW:

I want to give to Columbia University a fellowship in the School of Political Science, to be annually awarded by the Faculty, upon the nomination of my oldest living male descendant, the one bearing my family name to be entitled to the privilege to nominate. If the name becomes extinct, the eldest direct descendant bearing any other name to have this pri-

vilege, which, however, is not to attach to any one not a resident of the United States. Should no nomination be made, after proper notification having been given by the University officials, the President of the University is to have the right to nominate.

The value of the fellowship is to be the income from the sum of \$15,000, for which amount I enclose check, in the hope that it will be accepted by the University Trustees.

I am, dear Mr. Low,

Yours faithfully,

JACOB H. SCHIFF.

TO THE HON. SETH LOW, President, etc.

I ask, that, if accepted, the institution of this fellowship be dated from June *fifth*, 1898.

If, instead of investing the \$15,000 separately, the Trustees will take them over for the funds of Columbia University and pay to the fellowship an annual income of \$600, it will be equally satisfactory to me.

J. H. S.

Thereupon it was

*Resolved*, That the thanks of the Trustees be tendered to Mr. Jacob H. Schiff for his gift to the University of the sum of \$15,000, for the establishment of a Fellowship in Political Science, to be awarded annually upon the nomination of Mr. Schiff during his lifetime, and thereafter as outlined in his letter to the President, dated June 5, 1898.

*Resolved*, That the Schiff Fellowship in Political Science be, and hereby is, established as of the date of June 5th, 1898; that Mr. Schiff be requested to nominate a Fellow for the academic year 1898-99; and, pending the incorporation of a provision for the Fellowship in the Statutes, that the President have authority to appoint a Fellow upon Mr. Schiff's nomination. The income of the fellowship shall be \$600 per annum.

A gift of \$5,000 was received from Miss Catherine W. Bruce for the establishment of a Lectureship in Celestial Mechanics in the Department of Astronomy for the term of five years, and was accepted with a vote of thanks. Resolutions providing for the establishment of the Lectureship and the appointment of George William Hill, Sc.D. (Cantab.), LL.D., were also adopted.

A vote of thanks was tendered to Dr. J. Ackerman Coles for a gift of a bronze group, known as "The Farnese Bull;" and to

the Ingersoll Sergeant Drill Co., for a gift to the Department of Mechanics of a compound steam air compressor.

A portrait of Dr. McLane, Dean of the College of Physicians and Surgeons, was presented by the Medical Faculty.

A gift of \$200 was received from the Wawepex Society, and it was *Resolved*, That the gift of \$200 from the Wawepex Society, to be used in the establishment of an annual scholarship, to be known as the John D. Jones Scholarship in Biology, be accepted, and that the Treasurer have authority to pay this sum to the scholar appointed thereto by the Faculty of Pure Science; it being the purpose of the gift that the John D. Jones Scholar shall avail of the opportunities for investigation at the Summer School in Biology maintained by the Brooklyn Institute of Arts and Sciences at Cold Spring Harbor, L. I.

The President was authorized to extend to the President, professors, instructors and tutors of the College of the City of New York the same privileges in the Library as are enjoyed by our own alumni; and was also authorized to enter into arrangements with the Brooklyn Institute of Arts and Sciences for the delivery of courses of lectures to the teachers of Brooklyn under the joint auspices of the Institute and the University, provided that all expenses in connection therewith be met by the Institute.

The resignation of Dr. William H. Draper as Professor of Clinical Medicine was received and accepted, and he was appointed Emeritus Professor of Clinical Medicine.

The Statutes were amended by adding a new section to Chapter xvii. (Sec. 15), providing for the establishment of the Joseph Mosenthal Fellowship in Music; and a new section (Sec. 16) was added to Chapter xviii., providing for the establishment of two scholarships in the College, to be known as the Hewitt Scholarships, endowed by the gift of Abram S. Hewitt, LL.D., Class of 1842, and two scholarships, to be known as the Harper Scholarships, endowed by the bequest of Joseph W. Harper, A.M., Class of 1848, to be open to competition by graduates of the New York City high schools.

The President was authorized to appoint Mortimer L. Earle, Ph.D., as Lecturer in Greek during the academic year 1898-99.

The following appointments were confirmed. Under the Faculty of Medicine: Colin Campbell Stewart, Ph.D., as Tutor in Physiology, and Oliver S. Strong, A.M., Ph.D., as

Assistant in Normal Histology; Under the Faculty of Applied Science: Leon Laizer Watters, B.S., as Assistant in General Chemistry; Edward L. Coster, M.E., as Assistant in Mechanical Engineering, in place of Christopher Vandeventer, M.E., resigned; Under the Faculty of Philosophy: Adam LeRoy Jones, Ph.D., as Assistant in Philosophy.

The following appointments by faculties were reported. By the Faculty of Law: Herbert Noble, A.M., LL.B., as Lecturer on Bailments, Domestic Relations and Insurance; Charles T. Terry, A.B., LL.B., as Lecturer on Contracts; By the Faculty of Political Science: William Robert Shepherd, Ph.D., as Prize Lecturer in History.

#### THE TRUSTEES. OCTOBER MEETING

The President and the Treasurer presented their annual reports, which were ordered to be printed and distributed.

The following letter from Professor Egleston was received and the offer therein contained was accepted:

NEW YORK, October 1st, 1898.

TO THE TRUSTEES OF COLUMBIA UNIVERSITY,

GENTLEMEN:

As I am now convinced that I cannot regain my health sufficiently to again enter on the pursuit of science, and as I have experienced so much pleasure in myself carrying out a number of the provisions of my will, I propose, if you will accept the donation, to at once give my scientific library to the departments of the School of Mines, in which I was for so many years engaged. It consists mostly of serials, which either go back to their commencement or, at least, as far as they have any present value. There are also other books of importance. I do not propose to give any duplicates. I explained the object of this gift, in my letter of Oct. 20, 1897, to your body. The books I am ready to give at once. I propose also, by the first of December, to present to the Mineralogical Department my collection of minerals, under the conditions stated in that letter. My reason for the delay is, that this collection was commenced in the year 1855, and has always been an object of great pride and care. Almost every one of the 5000 specimens in it is a souvenir of some

person or event, and I wish to go over it once more, before it passes out of my hands. I shall be glad if you accept, for then I can feel that my most valuable scientific possessions will be at once of use in the institution to which my life has been devoted.

Yours respectfully,

THOS. EGGLESTON.

The Finance Committee reported the sale of the real estate received under the Havemeyer gift, being eight lots on Park Avenue, running from 74th Street to 75th Street, and the five lots on the southeast corner of 82nd Street and Fifth Avenue, and the action was approved and confirmed.

The President was authorized to grant a leave of absence to Benjamin D. Woodward, Ph.D., during the academic year, or for so long a time as his appointment as Assistant Commissioner-General to the Paris Exposition of 1900 may require.

Dr. Curtis Hidden Page resigned as Tutor in the Romance Languages and Literatures and was appointed Lecturer in the same department for the academic year.

The following appointments were confirmed: Rudolph Tombo, Ph.D., Tutor in the Germanic Languages and Literatures; James Howard McGregor, B.S., A.M., Assistant in Zoölogy; Victor Lenher, Ph.D., Assistant in Analytical Chemistry, vice George Müller, Ph.B., resigned; George N. Olcott, Ph.D., Lecturer in Roman Archæology; Frederick Sackett Hyde, Ph.B., Assistant in Analytical Chemistry, vice Henry C. Sherman, Ph.D., resigned; Emil Justus Riederer, B.S., Assistant in Analytical Chemistry, vice Charles H. Fulton, E.M., resigned; Samuel Osgood Miller, C.E., Assistant in Mechanical Engineering, vice Thomas H. Harrington, C.E., resigned.

#### UNIVERSITY COUNCIL. MAY MEETING

The following are extracts from the minutes of the meeting of the University Council held May 28, 1898:

The President stated that he had appointed the committees called for by the action of the Council at the last meeting, as follows: On the Appointment Committee, whose duty it shall be to recommend graduates of the College or University for teaching or other positions and to assist competent graduates to obtain such positions, such committee being instituted as a Standing

Committee: Professors N. M. Butler, F. R. Hutton, E. R. A. Seligman, J. McK. Cattell, H. A. Todd, G. W. Kirchwey, G. R. Carpenter, J. R. Wheeler, C. Thomas, and, of Teachers College, F. M. McMurry.

On Committee on Summer Work, whose duty it shall be to inquire and report to the Council as to what extension, if any, of the summer work of the University is possible and expedient during and after the summer of 1899, the President being named as Chairman of the Committee: Chairman, President Low; Professors N. M. Butler, H. S. Munroe, A. Cohn, J. H. Robinson, and, of Teachers College, J. E. Russell.

On motion, Mr. Frank Hoag Brooks, A.B., was appointed Henry Drisler Fellow in Classical Philology for the academic year 1898-99.

The Committee on University Scholarships reported that there had been received 98 applications for University Scholarships, 4 of which, from women, were, under a ruling by the President of the University, not considered by the Committee. The 94 remaining applications were apportioned as follows: Faculty of Philosophy: Philosophy, 8; Education, 6; Literature, 5; English, 5; Latin, 3; Semitic Languages, 3; Romance Languages, 3; Greek, 1; Anthropology, 1—Total, 35. Faculty of Political Science, 32. Faculty of Pure Science: Chemistry, 7; Mathematics, 6; Geology, 4; Physics, 3; Zoölogy, 3; Mechanics, 2; Botany, 2—Total, 27.

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A complete index to the twenty numbers of the *University Bulletin* has been prepared by Mr. C. A. Nelson, Assistant Librarian of the University Library. Any officer of the University can obtain a copy on application. Any other person may secure a copy by sending a two-cent stamp to cover cost of mailing. Address, THE UNIVERSITY QUARTERLY.

## UNIVERSITY STATISTICS

## DEGREES CONFERRED

	1894-95.	1895-96.	1896-97.	1897-98.
Bachelor of Arts . . . . .	47	54	57	45
Bachelor of Arts from Barnard College . . . . .	8	18	21	22
Bachelor of Laws . . . . .	36	52	72	84
Master of Laws . . . . .	2	0	0	0
Doctor of Medicine* . . . . .	191	234	40	145
Engineer of Mines . . . . .	13	12	7	19
Civil Engineer . . . . .	22	9	15	21
Electrical Engineer . . . . .	13	15	27	25
Metallurgical Engineer . . . . .	1	1	0	2
Bachelor of Science . . . . .	0	0	12	20
Bachelor of Philosophy . . . . .	16	21	1	0
Master of Arts . . . . .	22	55	62	86
Doctor of Philosophy . . . . .	21	10	16	22
Honorary Degrees . . . . .	1	2	1	4
	394	483	331	495

\* The variation of the number of graduates from the School of Physicians and Surgeons is due to the transition from the three years' to the four years' course.

## SUMMARY OF OFFICERS, 1898-99

Professors . . . . .	70
Adjunct and Associate Professors . . . . .	14
Clinical Professors and Lecturers . . . . .	14
Demonstrators . . . . .	3
Assistant Demonstrators . . . . .	9
Instructors . . . . .	54
Tutors . . . . .	30
Assistants . . . . .	51
Curators . . . . .	3
Lecturers . . . . .	25
Clinical Assistants . . . . .	65
OFFICERS OF INSTRUCTION . . . . .	338
OFFICERS OF ADMINISTRATION . . . . .	12
EMERITUS OFFICERS . . . . .	12
TOTAL . . . . .	362



## REGISTRATION OF STUDENTS

Primarily registered in the College :	1895.	1896.	1897.	1898
Freshman Class . . . . .	67	99	102	129
Sophomore Class . . . . .	58	61	85	89
Junior Class . . . . .	52	49	55	86
Senior Class . . . . .	52	51	48	55
Specials . . . . .	35	40	22	28
	<u>264</u>	<u>300</u>	<u>312</u>	<u>387</u>
Primarily registered in the Law School :				
First-year Class . . . . .	126	171	135	132
Second-year Class . . . . .	86	100	139	103
Third-year Class . . . . .	60	65	92	106
Specials . . . . .	39	4	2	1
	<u>305</u>	<u>340</u>	<u>368</u>	<u>342</u>
Primarily registered in the Medical School :				
First-year Class . . . . .	241	276	222	197
Second-year Class . . . . .	161	158	190	162
Third-year Class . . . . .	230	152	151	178
Fourth-year Class . . . . .	0	0	143	140
Specials . . . . .	23	22	23	20
Unclassified . . . . .	54	16	0	0
	<u>709</u>	<u>624</u>	<u>729</u>	<u>697</u>
Primarily Registered in the Schools of Applied Science :				
First-year Class . . . . .	123	105	123	128
Second-year Class . . . . .	85	88	106	106
Third-year Class . . . . .	71	80	74	86
Fourth-year Class . . . . .	50	63	80	75
Graduates . . . . .	1	3	8	7
Specials . . . . .	21	16	13	29
	<u>351</u>	<u>355</u>	<u>404</u>	<u>431</u>
Primarily registered under the Faculty of Political Science . . . . .	58	59	64	85
Primarily registered under the Faculty of Philosophy . . . . .	87	82	112	120
Primarily registered under the Faculty of Pure Science . . . . .	32	36	44	57
	<u>1806</u>	<u>1796</u>	<u>2033</u>	<u>2119</u>
Auditors . . . . .				15
From Barnard College* . . . . .				101
Women students from Teachers College . . . . .				35
Total . . . . .				<u>2270</u>
Receiving instruction at Barnard College . . . . .				265
Receiving instruction at Teachers College† . . . . .				253
Total, . . . . .				<u>2788</u>
Deluct for duplications, . . . . .				202
Total number of students under the control of the University,†				<u>2586</u>

\* Seniors and graduate students receiving instruction under various Faculties.

† Not including (492) pupils in the School of Observation and Practice and members of the Extension Classes connected with Teachers College. (746)

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*(From a Letter to the Author.)*

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(Signed) **ERNST LEMCKE.**

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FRANCIS LYNDE STETSON,

THOMAS A. MCINTYRE,

EDWARD E. POOR,

ANSON G. MCCOOK,

R. A. C. SMITH,

THOMAS F. RYAN.